

NSB/Shell Baseline Studies Program
Steering Committee Meeting

Dr. Albert Conference Hall, Building 350, NARL Barrow, Alaska

September 8th – 9th, 2011 9:00 a.m.

DRAFT MINUTES

September 8, 2011

Members:

Name	Representing	Name	Representing
Robert Suydam	NSB DWM	Craig George	NSB DWM
Sue Moore	Independent Scientist	Tom Weingartner	Independent Scientist
Don Nungasak	Barrow	Victoria Broje	Shell
Ray Koonuk	Pt. Hope	Bill Tracey	Pt. Lay
Michael Macrander	Shell	Hajo Eiken	Independent Scientist

Members Not Present:

Samuel Kunaknana	City of Nuiqsut
Brandon Southall	Independent Scientist
Harry Lord	City of Kaktovik
Ransom Agnasagga	City of Wainwright

Non Member Attendees:

Taqulik Hepa	Director of NSB DWM
Malissa Langley	Support Staff for Steering Committee NSB DWM
Kamalei Hepa	Support Staff for Steering Committee NSB DWM
Leslie Pierce	Outreach Coordinator NSB DWM
Nicole Kanayurak	Wildlife Intern NSB DWM
Bessie O'Rourke	Borough Attorney NSB Law Department
Todd Sformo	Wildlife Biologist NSB DWM

PURPOSE OF MEETING:

Hold the first in person meeting of the Steering Committee for the North Slope Borough/Shell Baseline Program:

- (1) to establish operating procedures for the Committee; and
- (2) to begin identification and prioritization of baseline data gaps and needs.

CALL TO ORDER:

Robert Suydam, with the North Slope Borough (NSB) Department of Wildlife Management (DWM) welcomed everyone to Barrow and thanked them for participating.

INVOCATION – Taqulik Hepa

INTRODUCTIONS:

Taqulik Hepa Director of Department of Wildlife for employed since 1991

Raphaela Stimmelmayer: Vet and research biologist for marine mammals 14 years arctic conditions how climate modifies the marine mammals and understanding the current issues and future. 3rd day of work with the NSB Wildlife Department.

Robert Suydam: Senior wildlife biologist since 1992

Craig George: Senior wildlife biologist barrow resident for more than 30 years

Sue Moore: Fisheries research office barrow may of 1981 lives in Seattle WA Bowhead whales

Hajo Eiken: Glaciologist study of ice on ocean work with coastal communities very encourage by this group coming together and learn

Ray Koonuk: Appt by city council of pt hope. Lived in pt hope and been involved for over 20 years

Bill Tracey: Appt by pt lay live there for most of life. I want to contribute as much as I can animal and people.

Tom Weingartner: Current patterns of ocean changes and understanding

Don Nungasak: Resident of Barrow lived whole life retired fire fighter, whaling captain and 23 years represent city of barrow, barrow.

Victoria Broje: Shell Oil spill scientist on national oil spill team for Russia. Spent two years on the northern way spill for arctic

Michael Macrander: Shell studies program .. job expanded since he began working biological side, ice program weather and physical conditions and technology.

OPENING REMARKS:

Robert: Mayor is not available hopefully tomorrow.

accomplished. This steering committee will help with this information to serve on this committee..

Michael Macrander: Thank you Taquilik . one of things that is exciting of this program change a model... worked all over US and World with a lot of issues...Shell partic good decisions made on good science. The model is the Oil co. hires scientist and maybe all the usual suspects. Local has limited ability to access that science. One sided discussion. This is stepping outside of that for local, facilitate the science program, Not goal to have competing science. We should never lose track of Shell and others have a responsibilities no matter what. Our hope is not to lose this outlook, take away what I hear here as questions that need to be answered. Arctic is changing environment lot of potential development and there is a critical need for information. We want to bring good science to Barrow.

Ray: Issues and concerns as to what we are dealing with. There are going to be problems as to impacts to migration and spells. Don't want to see that happen please show us. We weren't given the personnel that really understand the information we need help. Thank Shell for funding but they have to understand that our people eat what comes out of the ocean.

Robert: These are the concerns of the communities. That is why there are some many people from the communities to help set research priorities to make good decisions. Continguous circumstances and we need to come up with the right information to help with these concerns.

Tracy: Not all villages are represented today and it shows that life goes. I can help with AIN and other communities since I am here.

Teleconference needs to be available for next meeting.

Ray: If we can't be present. Robert: We will take about that later. We want people who can participate and can be available and having a telephone number they can call in.

Raphaela: Over direction baseline studies. Situation up here is dynamic and we should be available to deal with these types of situations. Real time information will become available.

Don: part of my opinion not for Shell not for NSB We being charged with viewing a lot of things at NSB Hunting, Safety, etc... Shell is charged with exploration and production.

Robert: You are right Shell and CP are being charged with

Don: we are at step 1 and working toward step 2 and will be addressed at another time.

Robert: Things are changing oil and gas activities. Our job to provide advice on long term what information will be needed. Production and environment.

Robert: So we haven't done back ground stuff. Add NSB has been complaining since 2006 interest roll backed for exploration Not good decision being made . Shell heard the Mayor and

NSB and we want to help with data gaps which has led to this committee. Lots of concerns communities, shipping, commercial and . We are not here to beat up on one another. We need to focus on our communities and the good things.

Michael: One comment it took a while after hearing initial comments to get this agreement in place and off the ground. The call to make information available and data available from studies. Shell CP and signed agreement to share with NOAA and other the scientific community.

Robert: Good to hear. Agreement had been signed it was with mixed feeling sand a good step to share but a little disappointed that we weren't a part of that since NSB have been so vocal

Took a break at 10:11 UNTIL 10:30AM

Back from break 10:35

Robert: Need to approve the agenda and the minutes from the last meeting. Rest of today Want everything to open and upfront.

Operations set up Rules and Procedures.

1. Executive session

Don: how you send out packet information Make sure that our office best way to contact our committee members.

Robert: Comments on minutes from teleconference from June. No comments please use same format for minutes that were used for June 23, 2010.

Minutes approved motion and second to adopt. RESCINDED

Craig question about a quote from Don but it was o.k.'d.

Spec. Items for the end of meeting.

Raphaella suggested that this is a historic event do we not need to have a different way to documented since it is a historical event. It has potential to be different. We do have recording and will have it placed on CD. Any thoughts

Bill Tracey : documentation is needed.

Don Nungasak second motion withdraw until chair, co-chair, and secretary has been established.

Robert : Not chaired too many meetings.

RAY: Workshop for policies and procedures and contracts. Their roles and responsibilities.

Robert: That is what we are going to do. The contract says that is what our first meeting is suppose to do.

TABLE Minutes from teleconference at Don's suggestion.

Lets elect a chair to make this meeting work.

Bessie: It is up you how you would like to proceed and you can do this by all agreeing.

Robert: Steering committee members are the ones to vote. 11 members are present and 4 not available. We do have a quorum.

Hajo: Need someone based in Barrow for Chair.

Ray: Making history here is there a conflict with Robert being chair and being an employee. Having his own work with the Borough and now the steering committee.

Robert: Everyone is very busy Mayor Itta has asked that Craig and I be on this committee.

Bill: Has no objection.

Michael: Get a facilitator. But not becoming too formal need to be able discuss information.

Hajo: Some point having to have

Do we have consensus? those committees' members that are the voting members Any objections:

No objections!

Tom: might be more effective for the chairman be a NSB employee

Hajo: Appreciate Tom's outlook maybe have a temp. chair elected

Craig: Very beginning stages. The Agreement allows up to have input. Sue Agrees.'

Interim Chair: Robert, Tom, Hajo and Sue and Bill vote for INTERIM CHAIR.

Michael we need a facilitator support staff. Chair works with the support person(s)

Chairperson Duties:

1. Works with support staff to make sure the agreement is being followed.
2. Call or run face to face and/or teleconference meetings.
3. Manage the agenda
4. Other duties as assigned
5. Following up on actions items as set forth by committee with support staff.

Terms of Service:

Three year with the potential to be reappointed re-elected. By consensus or by ballots.
Terminate 09/08/14.

READ Roberts S. notes.

Michael: Chair preference for non borough employees and or village representatives.

Any Member can serve as Chair.

Bill: Use a Relaxed Roberts Rules

Tom: 2nd motion to revisited Relaxed Roberts Rules. All agreement that we can revisit the relaxed Robert rules if needed.

Follow the Agreement as entered into with NSB and Shell.

Developing by laws as guided by the Agreement shall be executed through Robert, Bessie, Kamalei and Malissa. To include the voting of the Chairperson.

People will be identified when speaking during the meeting for the record.

Committee members

Outside People during meetings.

Michael: During decision making process it being only the steering committee.

Don: If the committee can act upon agenda items only and that would regulate what can be addressed by committee or non committee members to talk about things.

Robert: Maybe a public talking period for other items to be addressed.

Bill: Chair can recognize whoever wants to speak.

Michael: As we discuss this and the wisdom of steering committee and hope that each member take the responsibility of a two way street with their constituents and keeping them updated and getting their input. I hope that the large portion of the input would be through the committee members.

Don: Members reframing public statements need blessing of committee to make statements.
Concern of comments.

Bill: Sharing community maybe a newsletter or a press release.

Michael: Standards for attribution. Behave appropriately. Data discussion should be followed through agreement and between members .

Special Meeting: Topics?

Ray: Concerns of what is released and how do we know when to have a special meeting.

Stop for lunch at 12:05 until 1:20

Reviewed briefly the morning

Comments on speaking to the press.

Bill: Have official statement. Some guidance in our bylaws.

Craig: Action Points Read at end of meetings that everyone agrees to use if questions are asked.

Michael: Stepped away from duties of steering committee. Does steering committee engage in reviews of proposals. What level does steering committee.

Robert : wants to address standards before what the steering would address Anyone have thoughts about notes.

Craig: verbatim notes are hard but would like summarize the minutes.

Robert: Operating by consensus... simple majority thoughts please. Simple decisions use consensus or if we can't make decisions have a simple majority without chair voting. Simple Majority 2/3.

Prioritize studies:: Each member has one vote per each project to offer RFP's. Discussion of process..

Michael: Not being able to Stack your votes on one project .

Robert: Yes that is true but that person will not be able to vote on the other projects.

Craig: weighing both opinions

Tom: Agrees with Michael not able to stack all your votes on one project. Gave example of new way to prioritize.

Robert: Example of another way to prioritize.

Victoria: Gave example with ranking the priority of project.

Hajo: Comments that Independent scientists not be voting members

Tom: discussion independent scientist could be used for setting priorities.

Bill: Would like to be all equal members.

Michael and Robert: All members be used and contribution to prioritizing projects.

Don: the agreement page 6 section C1 again going back to Agreement.

Michael: Prioritization List of 5 for list of 25.

Hajo: Group establishing top priorities for the NSB because this is what brought about this agreement. Be comfortable with any mechanism to make choices.

Michael

1. Everyone gets certain number of chips
2. Same approach but you can't put all on one.
3. Everybody ranks topics and collate that
4. Everybody equally divides them and ranks a third high, third med. Third high

Tom, Michael: High med low

Victoria: Rank as a whole picture

Sue: any reference already out there because of communities meetings

Craig: yes

Robert: Seismic testing and how it is affecting the bowhead whales.

Michael:; MMS has ranked research priorities and Shell went through and pulled down three or four of them. Have been informed workshops but also local communities have made comments.

We certainly could go through public meetings and identify the concerns. Concerns that are ranked.

Tonight and tomorrow Don Ray and Bill--- what concerns from your villages that are topics summarize for tomorrow. Bill that depends on what the topic is for the community.

Bill: High Med Low

Victoria: Be able to have discussion about how the local concerns can be addressed through scientific discussion.

USE HIGH (1) MED(2) LOW(3) and ranking a 1/3 high 1/3 med and 1/3 low,. And then have discussions.

Rules and Procedures:

Executive Sessions: Not Recorded

1. Included on Agenda just in case it's needed.
2. Work with Law Department and see what is allowed through the Borough Rules or Laws
- 3.

Topics for executive sessions:

1. Chair or member maybe out of line and needs to be replaced.
- 2.

Loss of Pay, honorarium, travel

ABSENTEEISM

All Committee members will be notified of upcoming meeting. Excused by the sponsoring party and calls to the NSB for being absent.

We may want alternates in the event if the member can't come. YES TO ALTERNATES PUT IN BYLAW for Village Members Send minutes and notified them of all activities and meetings

Stagger terms for members.

Alternate scientists to Shell for comments 10 scientists were nominated and NSB picked 4. Someone the scientist picks like graduate student, or colleague??

Kaktovik and Nuiqsut are whaling.

CONFLICT OF INTEREST: Discussion

Tom: Proposal evaluation and ranking. Members are encouraged to use Due Diligence and recuse themselves if necessary from voting. This is in the Agreement.

SUBCOMMITTEES; no decision making capabilities

Data subcommittee meeting tomorrow.

A Smaller group to provide guidance to committee. A member of the steering committee will be a member to the subcommittee who will bring information to the Steering Committee.

Michael: **Steering community's members will have an equal opportunity of input to the membership of the sub-committee. Steering Committee Members shall have input on Composition of subcommittees. Placed in bylaws.**

Reviewed agenda for tomorrow Comments from Hajo and Robert regarding the duties of Steering Committee. Why are we here.

Robert will do an amended agenda for tomorrow's meeting

Agenda items

Michael: Need reasonable suggestions to keep Shell budget going for 2011 budget. Michael stated openly that Shell will spend about \$5,000,000.00 per year for next five years, capacity development, facilitating the project.

Robert will take recommendations for new agenda and it can be reviewed by committee.

Break for the afternoon.

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Malissa Langley	Support Staff for Steering Committee NSB DWM
Kamalei Hepa	Support Staff for Steering Committee NSB DWM
Leslie Pierce	Research Coordinator NSB DWM
Nicole Kanayurak	Wildlife Intern
Todd Sformo	Wildlife Biologist
Johnny Brower	Barrow Resident

INVOCATION – Ray Koonuk

OPENING REMARKS

Robert: Mayor Itta is not available he is still in Anchorage. Robert thanked everyone again for being part of an historical event.

BROAD OBJECTIVES FOR COMMITTEE

Michael: Emphasis on the coastal communities in the baseline study and the local community having an equal voice. Making sure the studies stay focused on the local community because the scientist can be geeky.

Contribute to viable understanding of arctic system. Understanding of the interactions between the people of North Slope and system and industry and changing developments.

Bill: Different committee because it includes people and scientist but gives leverage to fill in the gaps. Answers to a lot of questions and concerns in the village. Want to help the industry understand our concerns. We want to protect ourselves but not right out of the water.

Ray: Baseline study was recommended in 2006 and it has finally been put together. Impact of migration... revisit with the people and discuss what we want to happen from this

Missed Victoria and Tom: Computer shut down for updating windows..

Getting local children involved science.

Ray questioned can we do studies for inland issues?

Robert: Emphasis right now mostly marine issues right now and that is why the scientist have a marine focus. But that doesn't mean it won't happen

Hajo: What is the baseline it is a whole bunch of changes, social economic unraveling is hard. Being part of this committee is very exciting. This has been done before but this group has a whole bunch of different prospective. We have village concerns, scientist, municipalities, and oil industry. Identify a few things and make progress and go back to local communities. Issue is to really help the people here of NS or provide the help we can so that they have the best information to help them with their situations. Hopefully provide information that can help the people.

Sue: Agree with Hajo. The driving perspective in this group is the people of the North Slope and she is very excited. We have a real local but very long term perspective and the science

perspective that should be a bridging element with the eco system and bring a holistic approach. Take things in small enough bites that can set a frame work for the people in the future.

Craig: clearly the integration of the scientists and people. Overarching objectives: 1. Want to do is understand the marine eco system and understand human too avoid the huge mistakes that were made in the past. We have local observation system by hunters, they are wonderful they always see the first things and they come in the office and see certain things and I document the information. I feel they can be identified as experts in addition to scientists. Biological systems are noisy. 2 Making sense of research and getting the information back to the communities. 3. Helping the local communities make good decisions. 4. Don't get cynical about science very important to research but we have to act on it. The result of these studies hopefully we can act on them. We need scientist but we need hunters too, we need people to continue to be part of this life.

Todd: Getting young people involved in science but equally important is all the jobs, accounting, and business.

Bill: Unique to this committee village are bringing a lot to table and we can come up with the answers right here. Once we have answers we will share the results. We have the best minds here and this stuff is going to get back to the villages. We need the scientist to bring information back home to the people. By participation in actual activity.

Leslie: Educating children about science even though they go into law or business they still will be using the information about science. Nicole did mock meetings like this in schools.. it is hard to integrate with hunting and academics.

Tom: Remember decade or so ago encouraging ecological knowledge into their program spent a lot of time thinking about how to do that. Having Inupiat scientist will be able to integrate the traditions and scientists.

Ray Koonuk Still using whale blubber for fuel because white fuel is high \$15 dollars

Michael: this is an opportunity Shell has real emphasis on local employment rather than bringing from outside and be separate from the community. We see the collection of scientific information and one of our challenges is to develop and infrastructure to develop the local biological /environmental observers (hunters Whalers).

Raphaella: Unique opportunity. Experts at this table. Native Experts. Different communications, value system or need. Traditional ecological is very important. Although the program is focused on marine. The idea that we will focus marine the land animals use the marine system also. Looking across to other borders for information. To get people involved,

monitoring system that works in the field. Good effort to come up with things that people and hunters can be utilized. Being open and understanding with the local community.

Sue: Integration of other programs. There is a group has been that is monitoring and the intent to reach to communities across countries. Map and reports available implementation phase is suppose to start this next week.

Robert: 1. Hopeful this group can provide ideas study needs and priorities but is helpful for other groups in addition to us. Helping to form a foundation to be used in many other organizations.

Ray: Why is BP or CP not here? NOAA grant to clean up oceans we have a lot of debris at pt. hope down to cape Thompson can we consider this part of that.

Robert: We are taking small steps... if we can make this successful... hopefully people will want to join in.

BREAK 10:20am

Move to next agenda item.

C3 of agreement: Guidelines for research and monitoring:

Michael: Developing some type of research guidelines for relevant content. Quality assurance and Quality control. To have a demonstrable QA and QC and good data. That the data is looked at critically so that erroneous data is not given out. All data have QA and QC.

Hajo:

Bill: Let's consider listing the native value system in our guidelines to make sure we are following the values of the Inupiat people. This will bring things home. Respect is just of one.

Leslie will get the Inupiat values from the school district.

DATA QUALITY ISSUE:

Michael: We have a number of different cultures. Having a clear process prior to collecting data that identifies how the data is going to be collected. What instrumentation calibrated. QAQC program and how it was documented so it can come back here for decision making process is beyond debate. Standard operating procedure is not acceptable. Documentable pattern. I would touch on another point. Again it's to a process that I have more experience in Data Quality Approach. The data quality approach a QA QC process that is documentable but also includes a process whereby you consider carefully the decision to be made, identify project. Decide as a group what information will answer those questions in efficient matter always a nexus to

information collect and decision that is going to be made. Can give examples Do a quick Google search Data Quality Approach. Comes out of EPA.

Victoria: Doing studies for all people not just us NSB, Shell the world community is very interested in our findings. Global arctic committee.

Tom: If we want to leverage some of this work to other agencies we might want look at their archiving and dissemination information

Robert: Making sure the data is high quality information is a given. Shell is trying to make it more explicit is valuable. The process is as transparent as possible and is an important component. Very important to have quality assurance.

Field observation should have a quality control process up front. Have a clearly identified and transparent process that people will go to and apply.

Example Harvest documentation program. Caught eiders it far exceeded the amount of eiders in the area. There was an error so it was marked.

Data ARCHIVING AND DISSEMINATION:

Craig presented from laptop:

Two groups of data

1 is the stuff in the department already.

2. generated from this programs. Drifters, seal tagging study.

Importance of getting into safe structure.

Projects 2011 to keep in a database study for this study and other NSB studies.

Hajo:: CADIS SYSTEM ARCHIVING SYSTEM

Makes sense to go with data rescue is priority and you may need help working with this data and may need a professional to help with the activities under this agreement. And then when this is up and running you will need something you could search. AOOS Alaska Ocean Observing System.

Goal is the data available or storage to be accessed. Argue so far no one so far has been able to tackle this issue so far. This group can help with this issue.

Raphaella: Question to ask community what kind of data they would like to see or have access to in the way of data. EX: Whale tracks, temperature.

Robert: Form a data subcommittee which should be able to tackle the data archiving.

DATA SUBCOMMITTEE

Michael and Craig, Brandon, Hajo, Ray, Bill

1. ? Robert has
2. Deal with QC
3. Lead on subcommittee Michael volunteered.

Michael: Archive, communication – Another subcommittee when we get some data.

NSB Outreach Program:

Leslie: has handout and screen

Tom, Bill, Michael and all members were very excited with Leslie's Outreach Program and really want to implement this into the Baseline Study Program and use Leslie to assist in making data readable for local community.

Leslie is going to work on proposal for outreach, internship, KBRW while thinking on our new Budget.

Johnny Brower: Global warming is hurting our environment we used to walk across Bering Sea. Shell has ability to ignore and bypass laws when they get to a site. Applicable Law – contamination. Spending the money appropriately on contamination.

Robert: We welcome any comments you have about making sure we address concerns you have that we can use in our baseline studies.

Break for lunch at 12:11 until 1:15

Back at 1:20

Proposed and existing projects for the NSB/Shell Baseline Studies Program for 2011.

1. Surface current measurements using satellite-tracked drifter measurements off Barrow/Wainwright, Alaska.

Tom: Todd initiated it and how to measure currents. Simple program to implement the data is immediately available. Sent to communities and they deployed them for the scientists. Had school kids through them in the water, very simple. GPS position and time. We had unusually high failure rate and advised NSB to ask for money back. Combine radar and drifter data.

Michael asked if it was extended could it happen.

Tom: Two cost to project Drifter and satellite communication cost. Roughly 50% of budget.

Craig going over PowerPoint show.

Food safety and food quality is a big deal. Ray wanted to know if there are some older samples and Craig said yes and they would get him copies.

Oil fouling of bowhead whale baleen: this on hold.

Bowhead and beluga hearing study: Being done with some other funding. Objectives of study. Understanding the hearing apparatus . Determine possible causes.

Craig: Contribute the hurt marine mammal to the right source, the whale showed it was crabbing not industry. This is going to be a big challenge to define the source of the insult to the animal and to be able to pin point. Crabbing industry gets away with a lot.

VILLAGE CONCERNS:

Ray: Revisit his council and tribe and see is there other issues or concerns. Bearded seal the blubber was real yellow and dry. There were a few more. Kivalina would need to talk to them about their issues and concerns talk to whaling captains. Not a lot regarding seismic activity going on the last few years. Impact on the migration. A lot of issues when he goes out talks to them. Zinc dust from red dog mine.

Robert: Concerns on marine mammal foods mentioned oil spill cleanup.

Craig: Is it fair to say that containments still a big concern.

Ray: Yes Cape Lisbourne and Cape Thompson. Russia dumping The Soviets

Victoria; Would love to share studies, reports or summaries that are in the process on Global spills is in excess of 30 millions. How to relate to local communities.

Robert: Victoria do a PowerPoint presentation on studies of oil spills.

Craig: Is there interest in doing oil spill cleanup research.

GLOBAL RESEARCH future agenda how it may help the local people

Bill: Dust control is a real factor. Trucks covered, belts covered, dust contained.

Michael: Marine environment studies of the red dog mine.

Bill Concerns from pt. Lay our hunting boundaries overlap with Ray pt. hope. We do a lot Together with other villages. Lots of meetings and dinners industry, air force and people are Invited. Spills cannot be cleaned up on broken ice. Biggest reason pt. lay is unique is the lagoon system it is the largest in the world it is very important and very important to foul and marine animals to stay pristine. Part of it in within NRAL boundaries is scary. Don't want to see it used for pipelines. We want it protected but not so much that we local can't use it. More people that has ever been in the arctic and they are living off the land. Lot of oil on land why drill off shore. Walrus we are radio tracking out to the Sholes area near the lease sale area and that may need to be study is it a feeding area or a resting area. Ship traffic very concerned this includes our fuel barge. Off loading fuel we would like to see them put their boom out but they don't. Expecting a lot more traffic. Helicopters, they are everywhere. Caribou went away and now that helicopters are gone. The caribou is back. Lack of safe harbor and when all else failed the ship will beach itself. Climate change the ocean getting deeper that we may use the barrier island. Inlets changing staying really big. Concerned about oceans getting warmer and what does that mean. Paying big money for oil why are we getting from Washington.

Craig: copy of Braun study impacts of oil and gas study. No. 1 complaint helicopters.

Raphaela: Big study from air force.

Michael: Thought value of steering committee is that there is a lot going on. There are current studies and it is important to come together and reviewed these studies. Oil companies have done the studies and answered the oil company's questions. We need to answer the community concerns. Use some of the existing studies to help with our goals.

Tom: Take to village the walrus usage in shoals study used by shell to track walrus and there are studies regarding the walrus going to shoals area.

Break 2:45

Talk about studies to do for 2012 spend the rest of the day.

Robert: Plan to fill data gaps.

Michael: We shouldn't shy away for multiple year funding.

Hajo – Tom – Victoria: Workshop that brings various experts re: Off shore Ice Drift. Near shore ice drift environment. Or series of workshops to better understand ice movement.

Robert reviewing discussions:

Wainwright subsistence survey

Marine mammal diets

Success and lack of surface drifters.

Michael: Shall recognize the benefit of tagging we have a lot of corporate resistance. Tagging studies are fair game and encouraged. Species polar bear from shell and oil companies in chukchi sea –how can we contribute to this species. USGS tagging studies and acoustic studies over 4-5 last four years we are getting some significant information. Next big question is observations on those haul outs. Are they getting preyed upon. Going out for good leaving the pups. Pretty important thing and certainly the local people would be good observers without disturbances.

Craig: Cooper Island regarding Bear. Great local studies. They come into rest but if the helicopters come they are gone.

Tom: Webcam observing the walrus 24/7 observing behavior and particular individuals this was so valuable. This ties right into the villages.

Raphaella: Hair and skin snaring of the polar bear genetic samples. Heading to Kaktovik to set up a hair snare. Copper island not big bear problem this year. Local and state official have a big concern about how many animals have been handled so using the snare is a nice alternative.

Craig: Bowhead and gray whale distribution. Local Boat surveys

Michael: Archived samples heritage and storage and how they were collected. Dictates how they can be used. Establishment of protocol handling and storage and include chain of custody of living tissues for analysis. A guide centralized and given to hunters.

Bill: Data sharing walrus attractive to pt. lay. Beluga migration and eating habits and they seem to be coming around and the whales were smaller walrus and the shoals area base studies on the lagoons ...lagoon getting really shallow. All communities have community centers and would love to have pictures for the bulletin boards and keep the information updated.

Michael Closing Comments:

Appreciate everyone about being here this week and participation and intellectual commitment.

Ray: Real interesting what we are going to be doing here for next five years. Thank the Mayor's office.

Sue: Thank and NSB for hosting and support for getting us here.

Craig: Thank you to all parties involved in getting this going. Mildly excited yeah too many adjectives. Surprisingly where this could go. One thing that going into this we are going to stumble on both side of the fence but I believe we want to make the commitment if its good science we want to act on this information and help the people.

Bill: First met telephonically and didn't know what was going to happen. But now I have a handle on it and I will keep bringing it home.

STUDIES for 2012 and maybe extended into 2013

1. **Ring seal tagging study** that may need to be extended. Shell would like to expand this program to go to wainwright and Kaktovik.
2. Add **Acoustic components** to existing studies. Compilation of acoustic data ..acoustic habitat studies.
3. **Arctic Cod study**. Cod is where the beluga hang out. Sampling is different. Ray said last three to four years no cod is being caught. Maybe the water temperature. Long term and then mapping project where they go and what they do.
4. **Local Boat survey's Wainwright**
5. **Helicopters and impacts**
6. **Oil fouling Baleen Study**
7. **Beluga migration and eating habits**
8. **Data sharing walrus attractive to pt. lay**
9. **Base studies on the lagoons ...lagoon getting really shallow**
10. **Archived samples heritage and storage and how they were collected. Establishment of protocol handling and storage and include chain of custody of living tissues for analysis**
11. **Hair and skin snaring of the polar bear genetic samples**
12. **Oil spills and ice**
13. **Ship traffic monitoring**

