

**BLM National Petroleum Reserve in Alaska**  
**Northeastern NPR-A Regional Mitigation Strategy**  
**Workshop #3**

**March 8-9, 2016 – Fairbanks, Alaska**

**Workshop Summary**

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**Attachments:**

1. RMS Workshop packet – list of contents
2. Workshop Agenda
3. List of Participants
4. RMS Process and Schedule
5. Geographic Region Included in the Northeastern NPR-A Regional Mitigation Strategy – Working Draft
6. Area for Reasonably Foreseeable Future Development – Working Draft
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8. Estimating Compensatory Mitigation Amounts – Small Group Discussion Notes
9. Compensatory Mitigation Amount Worksheets (submitted by seven workshop participants)
10. RMS Monitoring (Goal 3) – Small Group Discussion Notes

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**Workshop Summary**

## Introduction

The Alaska State Office of the Bureau of Land Management (BLM) is developing a Regional Mitigation Strategy (RMS) for the Northeastern National Petroleum Reserve in Alaska (NPR-A). BLM hosted a third stakeholder workshop regarding this RMS on March 8-9, 2016 in Fairbanks, Alaska.<sup>1</sup>

The RMS workshop was attended by 58 people, including residents of the North Slope; members and representatives of North Slope Tribal governments, local governments, and Alaska Native Corporations; representatives of industry, universities, and conservation and other organizations; and state and federal land and resource management agencies.<sup>2</sup>

The objectives of the third RMS workshop were to:

1. Report on draft RMS sections that have been substantially updated based on stakeholder input (at prior workshops and in written comments), including:
  - Region addressed in the RMS
  - Unavoidable adverse impacts that warrant compensatory mitigation
  - Regional mitigation goals
  - Mitigation action nominations
  - Screening and ranking criteria
2. Present and hear comments on new draft sections of the RMS, including:
  - Anticipated future oil and gas development in the RMS region
  - How compensatory mitigation amounts would be determined
  - What should be monitored, to ensure that the mitigation is effective
  - How the RMS will be used by BLM in future decisions regarding oil and gas development projects

This document summarizes presentations made and comments received at the RMS workshop. The table of contents for the workshop binder is in Attachment 1. The agenda and participant list are in Attachments 2 and 3. Attachments 4-6 include materials presented at the workshop.

Comments made during the large and small group sessions, and submitted on optional worksheets, are summarized in Attachments 7-10. It is important to read to these attachments to see what workshop participants communicated to BLM on each topic.

The Northeastern NPR-A RMS project website provides additional information on the process of developing the strategy, links to all presentations and handouts from the third workshop, summaries of

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<sup>1</sup> The first two NPR-A RMS workshops were held March 31-April 1, 2015 in Fairbanks and September 24-25, 2015, in Barrow, Alaska.

<sup>2</sup> Technical contractors to BLM Alaska for development of the RMS present at this workshop were Mike Dwyer, Heidi Hartmann, and Bob Sullivan of Argonne National Laboratory ([www.anl.gov](http://www.anl.gov)). Facilitators for the project are Tahnee Robertson of Southwest Decision Resources ([www.swd.resources.com](http://www.swd.resources.com)) and Jan Caulfield of Jan Caulfield Consulting ([www.jancaulfield.com](http://www.jancaulfield.com)).

the two previous RMS workshops, and written comments received by BLM.

The project website also includes links to a new document, “*Summary of the Draft RMS for the Northeastern Region of the NPR-A.*” This document is a graphically illustrated version of the RMS that is intended to be more reader-friendly. Public comments are invited on this Summary RMS through May 30, 2016. Go to: <http://www.blm.gov/ak/st/en/prog/NPR-A/RMS.html>

The primary messages to BLM from stakeholder comments during the workshop included:

- Continued emphasis on local North Slope resident voices, importance of self-determination, and local empowerment.
- Strong recommendation that the mitigation goals need to “sustain and enhance” (not just “maintain”) subsistence, community health, and the other things that are so important to North Slope residents and communities.
- Earnest comments about guaranteeing the subsistence lifestyle of North Slope residents, community impacts and stress, the urgency of communities’ basic needs, and insightful ideas about the mitigation actions that most benefit residents locally.
- Comments that there are positive impacts of development for the North Slope region. The cost of mitigation must be balanced with the value of this development.
- Strong desire for local and equitable benefits from compensation – with the maximum amount of compensation funds going to mitigation actions on the ground and addressing the most impacted communities.
- NPR-A Working Group request for an additional review period before the final-draft RMS is distributed for public review in summer 2016.

Additional, more specific comments are presented in the following summary notes and attachments. Note that some stakeholders have chosen during the planning process to submit their comments on the RMS to BLM in writing, rather than verbally during the workshops. These comments are not captured in the workshop summaries, but are in the full public comment record compiled and considered by BLM during the RMS process.

## Day 1 – March 8, 2016

### Welcome and Invocation

PJ Simon, the second Chief of Allakaket and member of the Tanana Chiefs Conference (TCC) Executive Board and BLM’s Resource Advisory Council (RAC), welcomed workshop participants to TCC’s Chief David Salmon Tribal Hall in Fairbanks. Roy Nageak, BLM Barrow Field Station Natural Resource Specialist, offered the opening invocation.

### Opening Remarks

*Bud Cribley, State Director, BLM Alaska State Office*

BLM Alaska State Director Bud Cribley welcomed workshop participants. He expressed appreciation for their time and willingness to help BLM develop the Northeastern NPR-A RMS. While BLM has developed RMSs for solar energy zones in the southwest United States, the NPR-A RMS will address very different issues – including subsistence and sociocultural impacts – on a comparatively undisturbed landscape.

BLM is committed to incorporating diverse stakeholder feedback into this process. BLM is relying on constructive conversations with the affected residents of the North Slope and all of

the groups who represent interests on the North Slope, through this workshop and later in the process, to develop a RMS that will benefit the residents, habitats, and species of the North Slope. The Regional Mitigation Strategy will in no way replace the consultation and thorough analyses that are required by the National Environmental Policy Act (NEPA) for each large development project. Rather it is intended to give residents and other stakeholders a tool that they can use to plan ahead for mitigation activities and provide a clearer understanding of future mitigation requirements for industry.

## Overview of the Regional Mitigation Strategy and Process

*Molly Cobbs, RMS Coordinator, BLM*

*Mike Dwyer, Technical Contractor to BLM*

Molly Cobbs, RMS Coordinator for BLM, provided an overview of the RMS and the planning process. In February 2015, BLM approved development of the Greater Mooses Tooth 1 project (GMT1), the first oil and gas project on Federally managed lands in the NPR-A. The GMT1 Record of Decision (ROD) incorporated a robust package of mitigation requirements. This included an initial \$1 million to develop the landscape-level RMS for the Northeastern NPR-A and the plan for Greater Mooses Tooth 1 mitigation. When development begins, a \$7 million contribution from ConocoPhillips, Alaska, Inc will be transferred to BLM and used to finance mitigation projects to address unavoidable impacts from GMT1 on the community of Nuiqsut. BLM is working closely with Nuiqsut to identify how this compensatory mitigation fund should be managed and used. The GMT1 compensatory mitigation plan will be one component of the NPR-A RMS.

**What is a Regional Mitigation Strategy and how is it different from BLM's previous approach to mitigation?** – The GMT1 ROD requires BLM to develop a Regional Mitigation Strategy for the Northeastern NPR-A that will serve as a roadmap for providing compensatory mitigation<sup>3</sup> for unavoidable adverse impacts<sup>4</sup> from GMT1 and future projects enabled or assisted by the existence of GMT1.

The use of regional mitigation strategies is a relatively new tool for BLM. Compensatory mitigation for unavoidable adverse impacts is required under various Federal laws including, but not limited to, the National Environmental Policy Act of 1969 (NEPA). BLM's authority to require compensatory mitigation is supported by the Federal Land Policy and Management Act (BLM's Organic Act, 1976), Department of the Interior Secretarial Order 3330 issued in October 2013, and in BLM's Interim Policy for regional mitigation (MS-1794).

The Northeastern NPR-A RMS will identify the following at a landscape scale, in advance of future development activities:

- Anticipated oil and gas development activities,
- Anticipated unavoidable adverse impacts from that development,
- Potential compensatory mitigation actions to address those impacts, and
- A methodology for determining how much compensatory mitigation should be required for future development.

The RMS is *not* a decision document. Instead, it will inform BLM's *future* decisions about permits and mitigation requirements for oil and gas development projects in the Northeastern NPR-A.

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<sup>3</sup> "Compensatory mitigation" means replacing or providing substitute resources to address adverse impacts.

<sup>4</sup> An "unavoidable adverse impact" is a negative effect associated with a development project that cannot be mitigated through avoidance or minimization measures.

The RMS is being developed at a regional, landscape scale that will more effectively mitigate for cumulative effects than mitigation requirements determined through project-by-project NEPA analysis and permitting. Because the RMS is developed in advance of permitting decisions, it will provide more certainty about mitigation requirements for stakeholders and industry.

**Process and Schedule** – BLM is developing the RMS through a transparent stakeholder-based process. Attachment 4 illustrates the overall RMS process and schedule. Next steps include:

Date	Action
March-April 2016	<ul style="list-style-type: none"> <li>√ RMS Workshop #3 – Present preliminary draft sections of the RMS at third workshop; hear participant comments.</li> <li>√ Meeting in Nuiqsut regarding GMT1 compensatory mitigation plan.</li> </ul>
April 1–May 30, 2016	<ul style="list-style-type: none"> <li>√ 60-day public review of the Draft RMS Workshop #3 Summary and new document “<i>Summary of the Draft RMS for the Northeastern NPR-A</i>”.*</li> </ul>
Summer 2016	<ul style="list-style-type: none"> <li>√ Distribute “final draft” RMS for 90-day public review and written comment.</li> <li>√ Hold meetings on the RMS in North Slope communities.</li> </ul>
Winter 2016-2017	<ul style="list-style-type: none"> <li>√ RMS completed</li> </ul>

*\*Note: This additional 60-day review was added to the process by BLM, based on stakeholder requests at the 3<sup>rd</sup> RMS workshop.*

## RMS Process and Document Outline

*Mike Dwyer, Technical Contractor to BLM*

RMS technical contractor Mike Dwyer briefly described how the RMS would be used in future permit decisions for oil and gas projects (see page 11 for more information on “How the RMS Will be Used”) and explained the RMS document outline, below.

The Northeastern NPR-A RMS will include the following:

- Description of the region addressed through the RMS
- Current and reasonably foreseeable oil and gas development scenarios for the region
- Unavoidable adverse impacts of oil and gas development that warrant compensatory mitigation
- Regional mitigation goals to be achieved through the RMS
- Mitigation actions that can achieve the mitigation goals
- Screening and ranking criteria (used when future development projects are proposed to determine which impacts warrant mitigation, and to prioritize mitigation actions)
- Process for determining how much compensation will be required (e.g., compensation amount)
- Monitoring and adaptive management – to ensure that the RMS is effective in achieving the mitigation goals over the long-term

BLM is working with stakeholders to develop all of these sections of the RMS. Each of these sections has been actively discussed at the three RMS workshops. Comments made by participants during workshops and in written comments are helping to shape the final RMS document.

## Region Addressed in the Mitigation Strategy

*Molly Cobbs, RMS Coordinator, BLM*

At the second RMS workshop held in Barrow in September 2015, BLM had proposed a “firm, fixed-line” boundary for the Northeastern NPR-A RMS. Stakeholder response at that workshop and in later written comments did not support this. People stated that a firm RMS boundary would not reflect the dynamic relationships between resources, resource patterns, and people on Alaska’s North Slope.

To address this nearly unified sentiment, BLM is now proposing that the RMS will *not* have a firm, fixed-line boundary. Instead, the RMS will apply within the Northeastern region of the NPR-A, defined in general terms as the area between the Colville River on the east, the Chipp and Ikpikpuk rivers on the west, the Beaufort Sea on the north, and the boundary between the coastal plain and foothills on the south (Attachment 5).

The RMS will guide BLM in determining compensatory mitigation required for oil and gas development that *occurs in the Northeastern NPR-A region and is enabled by the existence of GMT1*.<sup>5</sup> The location of compensatory mitigation actions to address unavoidable adverse impacts from this development could be anywhere within the Northeastern NPR-A. The selection of the location and type of mitigation will be based on the potential effectiveness of the mitigation action(s). This is a process-driven approach to determining where mitigation actions would occur. It will provide more flexibility in siting compensatory mitigation actions to ensure that they are effective in meeting the mitigation goals – and is more suited to the dynamic nature of North Slope resources and resource use patterns.

## Anticipated Future Oil and Gas Development in the Northeastern NPR-A

*Stacie McIntosh, Manager, BLM Arctic Field Office*

The GMT1 Record of Decision directed the RMS to address “land uses that are *enabled or assisted by the presence of GMT1*, primarily oil and gas development and related infrastructure” that may impact habitat, subsistence, resources, values, and functions in the region, including socioeconomic impacts.

As part of the RMS, BLM must determine what is the “reasonably foreseeable [oil and gas] development scenario” (RFDS) for development enabled or assisted by the presence GMT1. BLM has developed a Working Draft map of this future development scenario (Attachment 6).<sup>6</sup>

A significant amount of uncertainty is associated with the projection of oil and gas development in the NPR-A, because of the many dynamic variables that influence development, including, but not limited to: the known locations of exploration, including probability of recoverable quantities of oil or gas; land management designations and existing restrictions; extraction and transportation technology; availability of supporting infrastructure; and market prices for oil and gas.

In developing the RFDS for this mitigation strategy (Attachment 6), BLM started with forecasts made during earlier project reviews (Alpine Satellite Development Project, 2004) – and updated the forecast based on more current information.

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<sup>5</sup> See the “Anticipated Future Oil and Gas Development” section, below, and Attachment 6.

<sup>6</sup> Note that BLM considered but eliminated Smith Bay and Umiat, concluding that development in these areas would be unlikely to be “enabled or assisted by GMT1 or associated infrastructure”, as the ROD directs.

BLM consulted with industry representatives and was informed that any future satellite production pads (enabled by GMT1) would need to be within a 30-mile radius of the Alpine Central Processing Facility. Industry anticipates that, at most, two more production pads would occur in either the GMT or Bear Tooth Units, within a 10-mile radius of GMT1 or GMT2. A road and pipeline would connect additional pads to the GMT infrastructure.

The updated RFDS shown in Attachment 6 incorporates this information from industry – but was also made larger to include all leased tracts contiguous to existing oil and gas production units, formerly utilized areas contiguous to the Bear Tooth Unit that have known reserves, and additional area recommended by BLM staff with expertise in oil and gas development.

## Unavoidable Adverse Impacts that Warrant Compensation

*Bob Sullivan, Technical Contractor to BLM*

An essential step in development of the RMS is to identify major unavoidable adverse impacts from oil and gas development that cannot be fully mitigated onsite by est minimization measures and best management practices (BMPs). Compensatory mitigation for unavoidable adverse impacts that warrant mitigation would be required through the RMS.

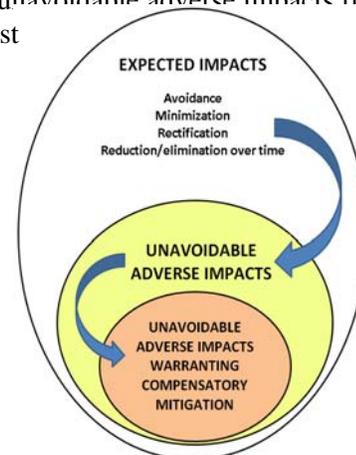
RMS technical contractor Bob Sullivan presented an updated, detailed list of unavoidable adverse impacts that warrant mitigation for the Northeastern NPR-A RMS.<sup>7</sup> The primary categories of major unavoidable adverse impacts that warrant mitigation are: **sociocultural systems, subsistence, and environmental justice.**

This list was developed from review of environmental documents prepared under the NEPA for the NPR-A Integrated Activity Plan (IAP) and the GMT1 development, as well as from discussion with stakeholders at the two prior RMS workshops, two community meetings in Nuiqsut, government-to-government consultation with the Native Village of Nuiqsut tribal council, and written public comment.

Impacts that “warrant compensatory mitigation” in the Northeastern NPR-A RMS are those with the potential to have:

- Unavoidable adverse effects to important, scarce or sensitive resources that have been previously identified in a mitigation strategy or a NEPA process as warranting compensatory mitigation.
- Unavoidable adverse effects that inhibit compliance with laws, regulations, and/or policies.

Compensatory mitigation may also be warranted for impacts to other resources, if project-specific impact assessments for future development identify major impacts to these resources. These might include impacts to air quality, water quality, public health, birds, fish, terrestrial mammals, Threatened and Endangered Species, cultural resources, visual resources, and land use and ownership.



## Regional Mitigation Goals

*Mike Dwyer, Technical Contractor to BLM*

<sup>7</sup> See updated list of Unavoidable Adverse Impacts that Warrant Compensatory Mitigation at: [http://www.blm.gov/ak/st/en/prog/NPR-A/RMS/NPR-A\\_RMS\\_workshop\\_3-2016.html](http://www.blm.gov/ak/st/en/prog/NPR-A/RMS/NPR-A_RMS_workshop_3-2016.html)

The RMS will include goals that specify what BLM is trying to achieve through the regional mitigation approach. The RMS mitigation goals will be used to select compensatory mitigation actions for future development, and also will be used to evaluate whether the RMS is effective over the long-term.

RMS technical contractor Mike Dwyer presented an updated list of RMS goals for comment. After the second RMS workshop held in Fairbanks in September 2015, the mitigation goals were substantially revised to address comments received at that workshop and in written comments.

The revised goals presented at Workshop #3 included (not in priority order):

1. Maintain access to and use of traditional subsistence use areas
2. Maintain opportunities for native peoples to live, practice, and pass-on Inupiaq culture and lifestyle
3. Maintain the functionality of the ecological system, including landscapes that allow for sustainable populations of fish and wildlife and their natural movement and distribution
4. Maintain and enhance the health and safety of the residents
5. Maintain and enhance opportunities for economic and community development

In an active large group comment session, specific suggestions for changes to the mitigation goal statements included:

- Change the word “maintain” to “**sustain and enhance rights and...**” in each of the five goal statements above.
- In Goal 2, insert “**rights and...**” before the word “opportunities”.
- In Goal 3, need to clarify that “landscapes” includes “lands and waters”. However, do not want to lose the direction that the RMS is to be a landscape-level strategy.
- Add goal language about North Slope residents benefitting from the oil and gas development, such as through jobs and contracting.

## Estimating Compensatory Mitigation Amount (Fees) - Presentation

*Heidi Hartmann, Technical Contractor to BLM*

The RMS will include a method that BLM will use to determine how much compensation to require to mitigate unavoidable adverse impacts from future oil and gas development in the Northeastern NPR-A. Technical contractor Heidi Hartmann presented information on how compensatory mitigation fees have been approached in other regional mitigation strategies – and how they may be approached in the NPR-A.

It is most likely that future developers would meet any compensatory mitigation requirements by paying a fee, which would be used to undertake one or more mitigation actions.<sup>8</sup> During a permit decision process, the BLM Authorized Officer, in consultation with others, would decide how much the mitigation fee would be. The compensation fee would be administered by BLM or by a third party.

The Northeastern NPR-A RMS will include a method for estimating the amount required to offset unavoidable adverse impacts that:

- Is based on direct, indirect, and cumulative impacts of the development project
- Provides mitigation for as long as impacts last

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<sup>8</sup> There may be circumstances in which, in lieu of paying a fee the developer could undertake a mitigation project. Regardless, the amount of compensation required would still need to be determined using the same approach as for a fee.

- Covers costs of monitoring, contingencies, and fee administration

**BLM is still working to design the best method for estimating compensatory mitigation amounts for this RMS.** At the time of Workshop #3, BLM and its technical team were considering a method that would place a “value” on the unavoidable adverse impacts experienced, as a major determinant of the compensation amount. For example, if a subsistence hunter could no longer hunt in a customary area and must travel farther to successfully hunt – What is the value of additional time, fuel, or equipment use that he or she must spend to be successful?

Workshop #3 participants met in small groups to discuss this possible approach to determining compensatory mitigation amounts (see section below). However, BLM has since determined that this approach would be very difficult to use for the wide range of impacts that may occur to complex subsistence and sociocultural systems. It would also not be appropriate when considering resources that people consider to be unique and priceless, such as hunting and fishing in one’s traditional area.

Instead, following Workshop #3, BLM has worked on an alternate methodology for determining a compensatory mitigation amount for future oil and gas developments. The new proposed method will be based on a per-acre base cost that could be adjusted up or down dependent on the specific characteristics of each future project. The new proposal is included in the “*Summary of the Draft RMS for the Northeastern Region of the NPR-A*”, which is available for public review April 1 – May 30, 2016.

## Day 2 – March 9, 2016

Crawford Paktotak, Co-Chair of the NPR-A Working Group, offered the opening invocation on the second morning.

### Estimating Compensatory Mitigation Amounts (Fees) – Small Group Discussion

As noted in the previous section, workshop participants divided into four small groups to discuss possible methods for estimating compensatory mitigation amounts. The small groups were organized around the topics listed below and people attended whichever group they chose. Comments made in small group discussions are presented in Attachment 8.

#### **I. Direct impacts to subsistence**

- Loss or avoidance of traditionally used and culturally important areas
- Access to subsistence areas
- Discontinued use of traditional use areas affected by development
- Aircraft disturbance
- Disruption of migrating subsistence species

#### **II. Socio-cultural impacts closely related to subsistence**

- Economic impacts of reduced availability of subsistence foods
- Less transmission of traditional subsistence knowledge across generations
- Reduced engagement in subsistence-related ceremonies
- Decreased sharing
- Decreased cooperative hunting and fishing
- Increase stress from impacts to subsistence lifestyle

- Feeling of loss due to development impacting culturally important areas

### **III. Other Socio-Cultural Impacts**

- Stress, conflicts, and time burdens associated with participation in development-related permitting
- Alcohol, drugs, and other negative cultural interactions
- Public health impacts

### **IV. Fish and Wildlife impacts**

- Birds
- Fish
- Mammals
- Threatened and Endangered Species (polar bear, spectacled eiders)

The small groups were asked, “What approach should BLM use – and what factors should it consider – when it makes decisions about compensatory mitigation fees for future development?” The following questions were offered to help start the small group discussions:

1. What specific unavoidable impact are you considering?
2. How would you approach determining compensation for this impact?
  - What loss (or losses) should be compensated for?
  - How would you measure the value of the loss?
3. What information or data would be needed for your approach?

Workshop participants were also given the opportunity to fill out a worksheet with their individual comments about how to estimate compensation amounts required for future oil and gas developments. Seven worksheets were turned in (Attachment 9).

As noted above, BLM is still trying to design the best method to estimate compensatory mitigation fees – and was looking for stakeholder input at the third workshop. The small group conversations held at the third workshop contributed to BLM’s understanding of impacts of concern, the value of resources impacted, and mitigation actions that could address these impacts.

## **Mitigation Action Nominations**

*Mike Dwyer, Technical Contractor to BLM*

The RMS will include a list of mitigation actions as a starting point for identifying compensatory mitigation actions for future oil and gas development in the region. Mike Dwyer presented an updated table of mitigation actions that have been nominated to date, grouped by the primary issue they appear to address.<sup>9</sup> This list of mitigation actions was developed from the GMT1 SEIS, input from two RMS Workshops, community meetings in Nuiqsut, and written comments – and has been kept updated as stakeholders suggest additional mitigation actions.

## **Screening and Ranking Criteria**

*Steve Cohn, Deputy State Director, BLM Alaska State Office*

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<sup>9</sup> See list of mitigation actions mentioned to date at: [http://www.blm.gov/ak/st/en/prog/NPR-A/RMS/NPR-A\\_RMS\\_workshop\\_3-2016.html](http://www.blm.gov/ak/st/en/prog/NPR-A/RMS/NPR-A_RMS_workshop_3-2016.html)

The RMS will include two types of criteria that will be used by BLM to evaluate and select potential compensatory mitigation actions. Criteria were first presented at the second RMS Workshop in Barrow in September 2015. The criteria presented at Workshop #3 had been revised substantially based on public comments.

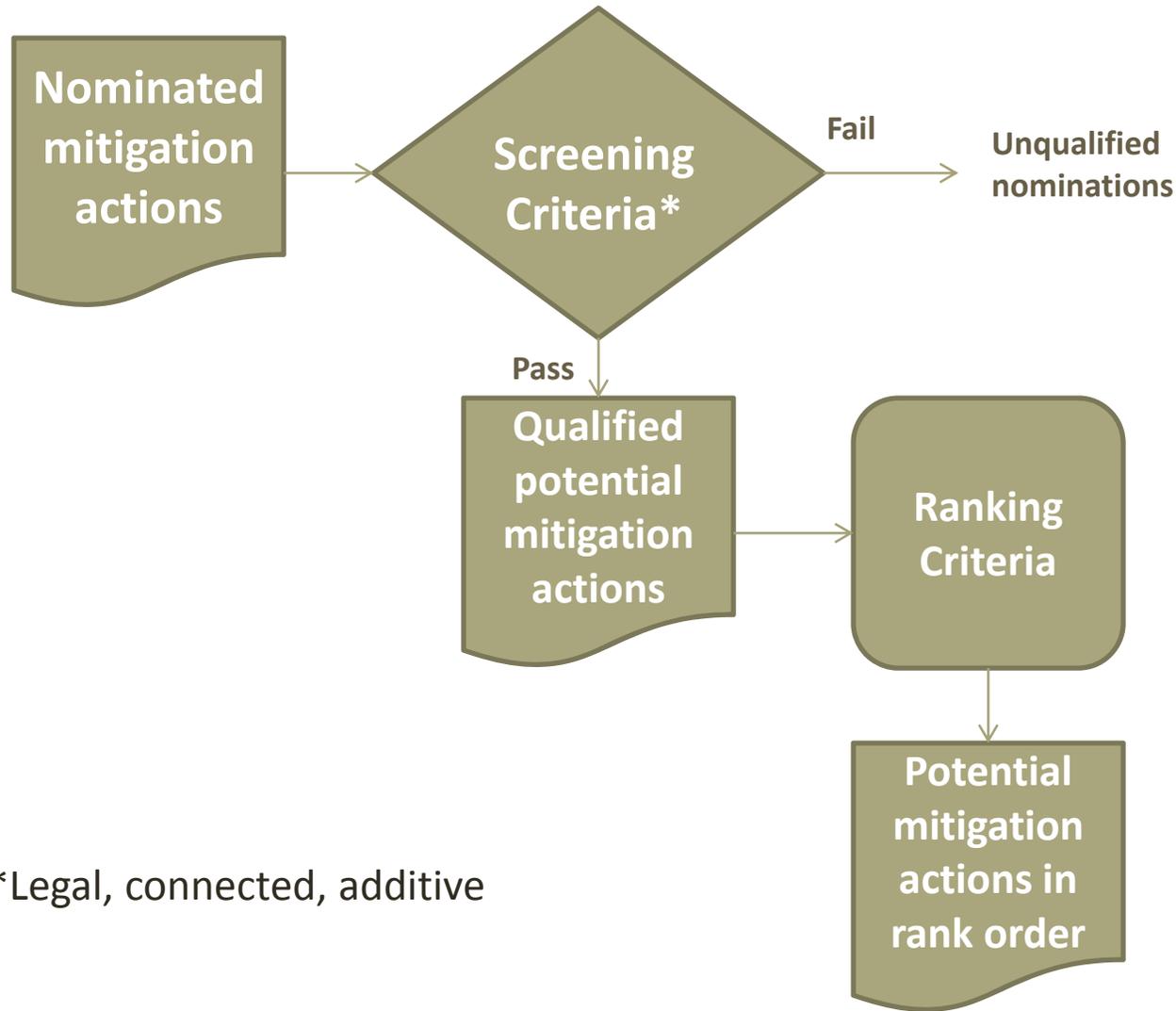
The criteria will be used as shown in the graphic below:

- In a first step, **Screening Criteria** will be used to ensure that potential mitigation actions are:
  - Legal – consistent with laws, regulations, policies.
  - Connected – reasonably address and are proportional to the unavoidable impact(s) warranting mitigation.
  - Additive – would not otherwise get done by the BLM or some other agency.

Only actions that would meet all three of these screening criteria would be considered as possible compensatory mitigation actions.

- In a second step, **Ranking Criteria** will be used by BLM, in consultation with affected stakeholders, to prioritize and select compensatory mitigation actions to address the unavoidable adverse impacts of future oil and gas developments. The proposed Ranking Criteria are:
  - **Importance:** How strong is stakeholder support for the action?
    - Residents most directly impacted
    - Stakeholders/public at large
  - **Effectiveness:** How effective will the action be in achieving the RMS goals?
  - **Risk:** How certain is it that the desired outcome will be achieved?
  - **Feasibility:** How practicable is the action in terms of technology, logistics, cost, and time?
  - **Durability:** How likely is it that the outcomes of the action will last at least as long as the impacts of development?
  - **Timeliness** (e.g., time lag, temporal loss): How much time is expected to elapse between the time the impacts first occur and the time the full benefits of the action are realized?

# Screening & Ranking Process



\*Legal, connected, additive



## Effectiveness Monitoring and Adaptive Management

*Mike Dwyer, Technical Contractor to BLM*

The RMS will include a section that discusses how mitigation actions will be monitored and assessed for effectiveness – and how the RMS will be changed (adapted) in the future to make sure it is effective over the long-term. For proposed RMS Goal 3, participants were asked to identify measures that can be monitored in the future to evaluate whether the RMS is achieving the goal – as well as data sources related to those monitoring indicators.<sup>10</sup> Responses from the group are provided in Attachment 10. (Note – This workshop session was shortened and addressed only RMS Goal 3, due to most North Slope residents stepping out of the workshop for a brief caucus.)

## How the RMS Will be Used

*Molly Cobbs, RMS Coordinator, BLM Alaska State Office*

The Northeastern NPR-A RMS will be used when future development is proposed – beginning with an Application for Permit to Drill (APD), as shown in the graphic below.<sup>11</sup> The RMS will be used by BLM in three different ways for future oil and gas development projects:

1. NEPA analysis (e.g., Environmental Impact Statement) – BLM will use the RMS as a starting point for identifying unavoidable adverse impacts, baseline resource conditions, cumulative effects analysis, and to identify project-specific mitigation actions. This will result in more thorough NEPA analysis with greater consideration of social and cumulative impacts.
2. Decision-making (e.g., Record of Decision) – BLM will use the RMS to determine which impacts warrant compensatory mitigation and the amount of compensatory mitigation (e.g., fee) required.
3. Compensatory mitigation plans (if required for specific development projects) – The RMS will include: a list of possible mitigation actions, criteria for prioritizing/selecting actions, guidance on how the mitigation fund could be managed, and guidelines for monitoring and adaptive management, to make sure mitigation is effective.

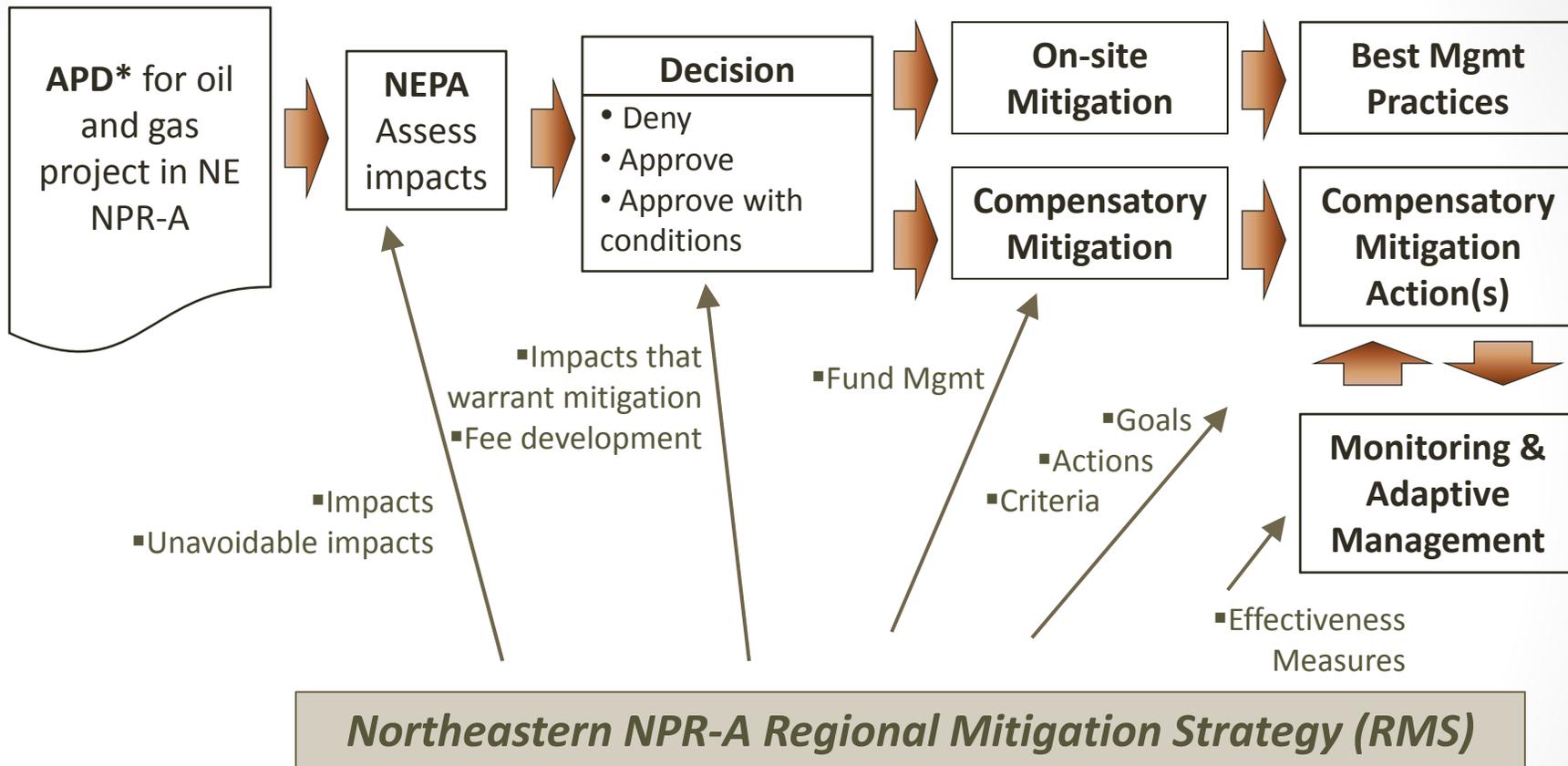
The decision about how much and what type of compensation will be required will be made by the BLM Authorized Officer during the NEPA process. This process provides for consultation with local and other stakeholders.

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<sup>10</sup> Proposed Goal 3: Maintain the functionality of the ecological system, including landscapes that allow for sustainable populations of fish and wildlife and their natural movement and distribution.

<sup>11</sup> In response to a comment, it was clarified that not all Applications for Permit to Drill (APD) would require BLM to conduct a new NEPA analysis prior to reaching a decision on an APD request.

# Process



\*Application for Permit to Drill (APD)



## **RMS Process – Next Steps & Workshop Closing**

*Molly Cobbs, RMS Coordinator, BLM Alaska State Office  
Bud Cribley, State Director, BLM Alaska State Office*

Molly Cobbs reviewed the next steps and schedule for completing the RMS, which proposed a 90-day public review during June-August 2016 and a final RMS completed by October 2016.

In response, the NPR-A Working Group strongly requested that BLM change the schedule to provide an early 90-day review period for North Slope residents, before a final draft is released for wider public review. They expressed the importance of the early involvement of the local resident stakeholders, local buy-in to the RMS, and the need for meetings in NPR-A communities (rather than outside of the region). They noted that the North Slope residents participating in the RMS workshop did not have authority to speak for the affected communities and organizations in the region. They also requested that a user-friendly version of the RMS be prepared (more graphics, less text).

In response to this request, State Director Bud Cribley indicated that BLM will provide an additional 60-day public comment period in April-May 2016 for all stakeholders, prior to the 90-day public review period for the final-draft RMS in summer 2016. BLM will also prepare a more user-friendly RMS document (more graphics) and will hold meetings in North Slope communities.

The next steps and schedule – adjusted as described above – is shown on page 4 of this workshop summary.

In closing, Director Bud Cribley again thanked workshop participants for their time and input. BLM appreciates working with everyone in development of the RMS for the Northeastern NPR-A – even when there are differences of opinion or approach. The RMS provides an important opportunity to gain more certainty about future mitigation requirements, and to ensure that there is compensation for unavoidable adverse impacts to subsistence, communities, and other resources.

**BLM-Alaska**  
**Regional Mitigation Strategy Workshop**  
**March 8-9, 2016**  
**Fairbanks, Alaska**

**MEETING FOLDER – TABLE OF CONTENTS**

- Workshop Agenda
- Workshop Participant List
- Overview of the Regional Mitigation Strategy for the Northeastern National Petroleum Reserve in Alaska
- Excerpt from the Record of Decision for... the Proposed GMT1 – Supplemental Best Management Practice 1 – Establishment of Compensatory Mitigation Fund and Regional Mitigation Strategy
- Geographic Region Included in the Northeastern NPR-A Regional Mitigation Strategy – Update
- Description of Anticipated Future Oil and Gas Development in the Northeast National Petroleum Reserve in Alaska
- Unavoidable Adverse Impacts that Warrant Compensatory Mitigation
- Regional Mitigation Goals – Update
- Calculating a Compensatory Mitigation Fee  
(NOTE: This paper, distributed at Workshop #3, is no longer current. BLM is proposing a different method for determining a compensatory mitigation amount for future oil and gas development projects. The proposed method is described in the *“Summary of the Draft RMS for the Northeastern Region of the NPR-A”*, available for public comment April 6-May 30, 2016.)
- Northeastern NPR-A Compensatory Mitigation Actions Nominated by Stakeholders - Update
- Compensatory Mitigation Action Screening and Ranking Criteria – Update
- Monitoring and Adaptive Management
- How the Regional Mitigation Strategy will be Used
- Preferred Alternative B-2 Land Allocations (Map 2-2-2)
- Glossary & Acronyms

**BLM Alaska  
Northeastern National Petroleum Reserve in Alaska  
Regional Mitigation Strategy – Workshop #3**

March 8-9, 2016  
8:30AM - 5:00PM

Chief David Salmon Tribal Hall (111 W. Clay Street), Fairbanks, Alaska

## AGENDA

### WORKSHOP OUTCOMES

1. Develop shared understanding of the Northeastern NPR-A Regional Mitigation Strategy (RMS) process, schedule, and outcomes
2. Based on stakeholder input to date, report on revised sections of the RMS:
  - Region addressed in the mitigation strategy
  - Unavoidable adverse impacts that warrant compensatory mitigation
  - Regional mitigation goals
  - Mitigation action nominations
  - Screening and ranking criteria
3. Propose, foster discussion, and gather feedback on:
  - Anticipated future oil and gas development in the RMS region
  - How compensatory mitigation fees would be determined
  - How to determine the future effectiveness of the RMS
  - How the RMS will be used in future decision-making

### TUESDAY, MARCH 8

Time	Topic
8:30	<b>Welcome and Invocation</b> <b>Introductions</b> <b>Review Workshop Agenda &amp; Outcomes</b>
9:00	<b>Overview</b> <ul style="list-style-type: none"> <li>• GMT1 Record of Decision Mitigation Requirements – <i>Molly Cobbs and Stacie McIntosh, BLM</i></li> <li>• RMS Process and Document Outline – <i>Mike Dwyer, Argonne</i></li> </ul>
10:15	<b>Break</b>

**BLM Alaska  
Northeastern National Petroleum Reserve in Alaska  
Regional Mitigation Strategy – Workshop #3**

Time	Topic
10:30	<b>Region Addressed in the Mitigation Strategy</b> – <i>Molly Cobbs, BLM</i>
11:15	<b>Anticipated Future Oil and Gas Development in the Northeastern NPR-A</b> – <i>Stacie McIntosh, BLM</i>
12:00	<b>Lunch</b>
1:30	<b>Unavoidable Adverse Impacts that Warrant Compensatory Mitigation</b> – <i>Bob Sullivan, Argonne</i> <ul style="list-style-type: none"> <li>• Overview of unavoidable adverse impacts (based on the reasonably foreseeable development scenario) and preliminary identification of impacts that warrant mitigation</li> </ul>
2:30	<b>Regional Mitigation Goals</b> – <i>Mike Dwyer, Argonne</i> <ul style="list-style-type: none"> <li>• Brief review of the revised RMS goals</li> </ul>
2:45	<b>Break</b>
3:00	<b>Estimating Compensatory Mitigation Fees</b> – <i>Heidi Hartmann, Argonne</i> <ul style="list-style-type: none"> <li>• How would impact(s) be valued to be commensurate with the unavoidable adverse impacts?</li> <li>• What is the monetary value of the unavoidable adverse impacts?</li> </ul> <p><b>Small Group Discussion</b></p> <ul style="list-style-type: none"> <li>• Approach to estimating costs for subsistence, sociocultural, and environmental justice impacts</li> <li>• Comments on additional fees (effectiveness, administration, contingency)</li> <li>• Data sources for estimating costs</li> <li>• Recommendations / comments on what factors to consider in quantifying the costs of unavoidable adverse impacts that warrant mitigation</li> </ul> <p><b>Sharing Back</b></p>

**BLM Alaska  
Northeastern National Petroleum Reserve in Alaska  
Regional Mitigation Strategy – Workshop #3**

Time	Topic
5:00	Adjourn

**WEDNESDAY, MARCH 9**

Time	Topic
8:30	<b>Getting Started</b>
8:45	<p><b>Mitigation Action Nominations</b> – <i>Mike Dwyer, Argonne</i></p> <ul style="list-style-type: none"> <li>Overview of stakeholder input, updated list of the types of mitigation actions that could be implemented through the RMS</li> </ul>
9:15	<p><b>Screening and Ranking Criteria</b> – <i>Steve Cohn, BLM</i></p> <ul style="list-style-type: none"> <li>Review criteria used to screen potential mitigation actions and for ranking and prioritizing mitigation actions</li> </ul> <p><b>Dot Exercise</b></p> <ul style="list-style-type: none"> <li>Each participant is given dots to distribute among the six ranking criteria to indicate their relative importance.</li> </ul>
10:00	<b>Break</b>
10:15	<p><b>Monitoring and Adaptive Management</b> – <i>Mike Dwyer, Argonne</i></p> <ul style="list-style-type: none"> <li>Overview of how the mitigation actions will be monitored and assessed for effectiveness and adapted, if required, to achieve desired outcomes.</li> </ul> <p><b>Small Group Discussion</b></p> <ul style="list-style-type: none"> <li>For each mitigation goal, identify two things we can observe in the future (monitor) that will indicate whether the mitigation actions are achieving the goal.</li> </ul>
12:00	<b>Lunch</b>

**BLM Alaska  
Northeastern National Petroleum Reserve in Alaska  
Regional Mitigation Strategy – Workshop #3**

Time	Topic
1:30	<p><b>Sharing Back</b></p> <ul style="list-style-type: none"> <li>• Results of dot exercise – Ranking criteria</li> <li>• Small group discussion – Monitoring and adaptive management</li> </ul>
2:15	<p><b>How the RMS will be Used</b> – <i>Molly Cobbs, BLM</i></p> <ul style="list-style-type: none"> <li>• Discuss how the RMS will be used in future decision-making</li> </ul>
3:00	<p><b>Break</b></p>
3:15	<p><b>Review What We've Heard at this Workshop</b> – <i>Stacie McIntosh, BLM</i></p> <ul style="list-style-type: none"> <li>• What we've heard from you and will work on as we continue the RMS process</li> </ul> <p><b>RMS Process – Next Steps</b> – <i>Molly Cobbs, BLM</i></p> <ul style="list-style-type: none"> <li>• Process review, comments and deadlines, other involvement opportunities</li> </ul> <p><b>Workshop Evaluation and Closing Comments</b> – <i>Bud Cribley, BLM</i></p>
4:30	<p><b>Thank You and Adjourn</b></p>

**BLM Northeast NPR-A Regional Mitigation Strategy - Workshop #3 (March 8-9, 2016)**  
**Participants**

AFFILIATION	NAME	POSITION/TITLE
Alaska Department of Natural Resources	Jeff Bruno	Deputy Director
Alaska Wilderness Society	Maggie Massey	Environmental Coordinator
Arctic Slope Regional Corporation	Crawford Patkotak	Board Chairman / EVP Stakeholder Engagement
Arctic Slope Regional Corporation	Erik Kenning	Director, Land Management & Enforcement
ASRC and BLM RAC	Teresa Imm	SVP Resource Development
Atqasuk Corporation	Margaret Ahngasuk	President
BLM RAC	Gary Morrison	RAC Member
BLM RAC	Bronk Jorgensen	RAC Member
BLM RAC	Barrett Ristroph	RAC Member
BLM RAC	Kathryn Martin	Vice Chair
Bureau of Ocean Energy Management	Bridget Psarianos	Program Analyst
Bureau of Safety and Environ. Enforcement	Scott Carr	Program Analyst (Arctic Research)
Caelus Energy Alaska Smith Bay, LLC	Faith Martineau	Regulatory Coordinator
Centre for Independent Social Research, Russia	Maria Tysiachniouk	Researcher
City of Anaktuvuk Pass	Justus Mekiana Jr. (Kenny)	
City of Barrow	James Koonaloak	
City of Nuiqsut	Herbert Ipalook Jr.	City Council Member
City of Wainwright and NPR-A Working Group	John Hopson Jr.	Mayor
ConocoPhillips	David W. Brown	Land Manager
ConocoPhillips	Lisa Pekich	Director of Village Outreach
Conservation Lands Foundation	Lindsey Hajduk	Alaska Program Director
Donlin Gold, LLC	Stanley Foo	
DOWL	Nick Enos	Senior Environmental Project Manager
DOWL	Leyla Arsan	Senior Biologist
Inupiat Community of the Arctic Slope	Doreen Ahgeak Lampe	Executive Director
Kuukpik Corporation	Andy Mack	Counsel
Kuukpik Corporation	Bernice Kaigelak	
Kuukpik Corporation	Lanston Chinn	CEO
Kuukpik Corporation	Leonard Lampe	
Naqragmiut Tribal Council	Charles (Solly) Hugo	
Native Village of Nuiqsut	David Arnold	Consultant
Native Village of Nuiqsut	Eli Nukapigak	
Native Village of Nuiqsut	John Nichols	
Native Village of Nuiqsut	Martha Itta	Tribal Administrator
Native Village of Nuiqsut	Sam Kunaknana	President
Native Village of Nuiqsut	Hazel Kunaknana	
Native Village of Point Hope	Daisy Sage	Council member
North Slope Borough	Hazel Faye Pebley	Land Management Regulation Manager
North Slope Borough	John Quincy Adams	
North Slope Science Initiative	Denny Lassuy	Director (Acting)
Nunamiut Corporation	Riley Sikvayugak	Board Member
Olgoonik Corporation	Theresa Clark	VP Lands

AFFILIATION	NAME	POSITION/TITLE
Senator Dan Sullivan's Office	Michael Fleagle	Deputy Chief of Staff
The Nature Conservancy	Ann Rappoport	Director of Conservation
The Nature Conservancy	David Albert	Director of Conservation Science
The Wilderness Society	David Krause	Arctic Lands Conservation Specialist
The Wilderness Society	Lois Epstein	Engineer and Arctic Program Director
The Wilderness Society	Nicole Whittington-Evans	Alaska Regional Director
The Wilderness Society	Tim Fullman	Wildlife Ecologist
Tikigaq Corporation & NPR-A Working Group	Sayers R. Tuzroyluk, Sr.	Chairman and Member
Trustees for Alaska	Brook Brisson	Senior Staff Attorney
Trustees for Alaska	Suzanne Bostrom	Chair
U.S. Army Corps of Engineers	Sheila Newman	Special Actions Branch Chief
U.S. Environmental Protection Agency	Gayle Martin	Biologist
U.S. Geological Survey	John Pearce	Chief, Wetland & Terrestrial Ecosystems Office
University of Alaska Fairbanks	Olivia Lee	Research Asst. Professor
USFWS Fairbanks	Louise Smith	Wildlife Biologist
Kuukpik Corporation	Emily Wilson	President
	Roxy Oyagak	

#### **BLM**

BLM Alaska State Office	Bud Cribley	State Director
BLM Alaska State Office	June Lowery	Public Affairs
BLM Alaska State Office	Molly Cobbs	Regional Mitigation Strategy Coordinator
BLM Alaska State Office	Steve Cohn	Deputy State Director
BLM Arctic Field Office	Stacey Fritz	Anthropologist
BLM Arctic Field Office	Stacie McIntosh	Field Manager
BLM Arctic Field Office	Roy Nageak	Natural Resources Program Coordinator
BLM Arctic Field Office	Wayne Svejnoha	Supervisory Minerals and Energy Specialist

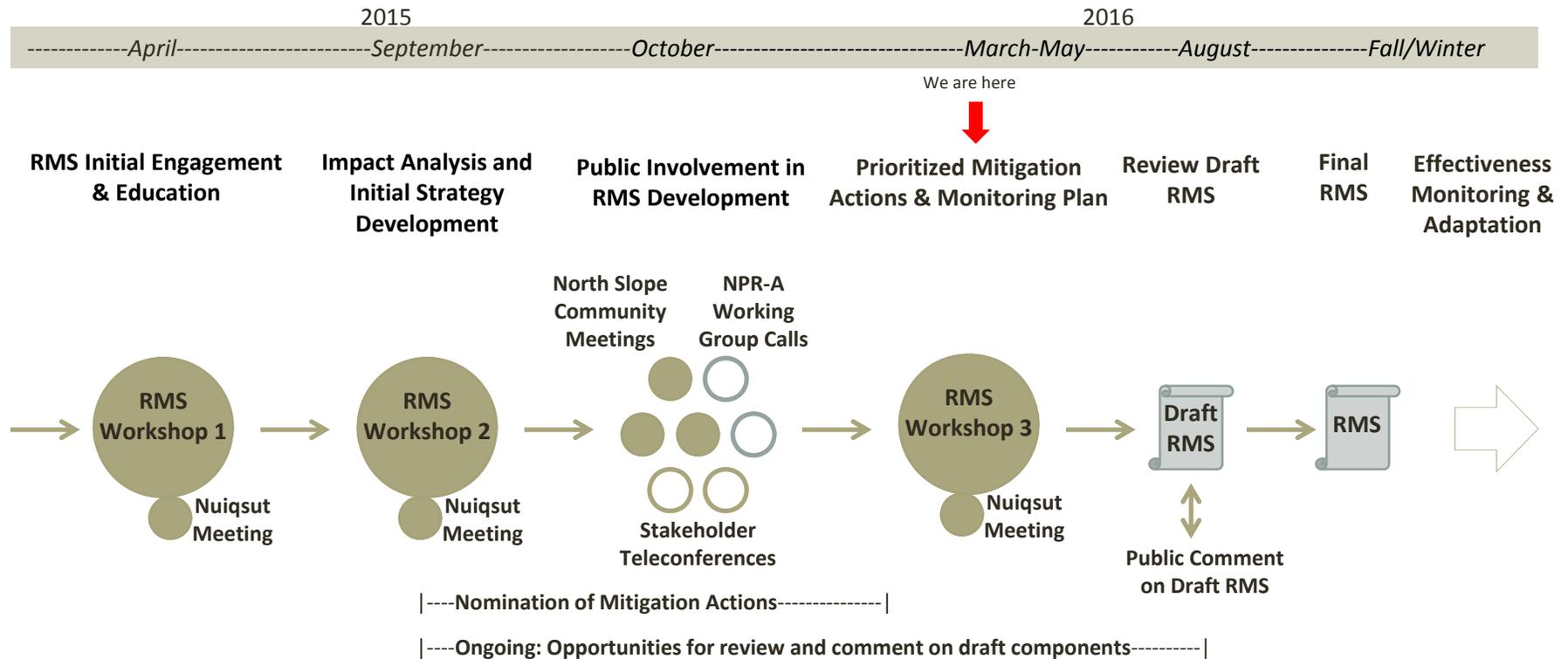
#### **Argonne National Laboratory**

Bob Sullivan	Environmental Scientist	
Heidi Hartmann	Environmental Scientist	
Mike Dwyer	Environmental Scientist	

#### **Facilitation Team**

Jan Caulfield Consulting	Jan Caulfield	
Southwest Decision Resources	Tahnee Robertson	

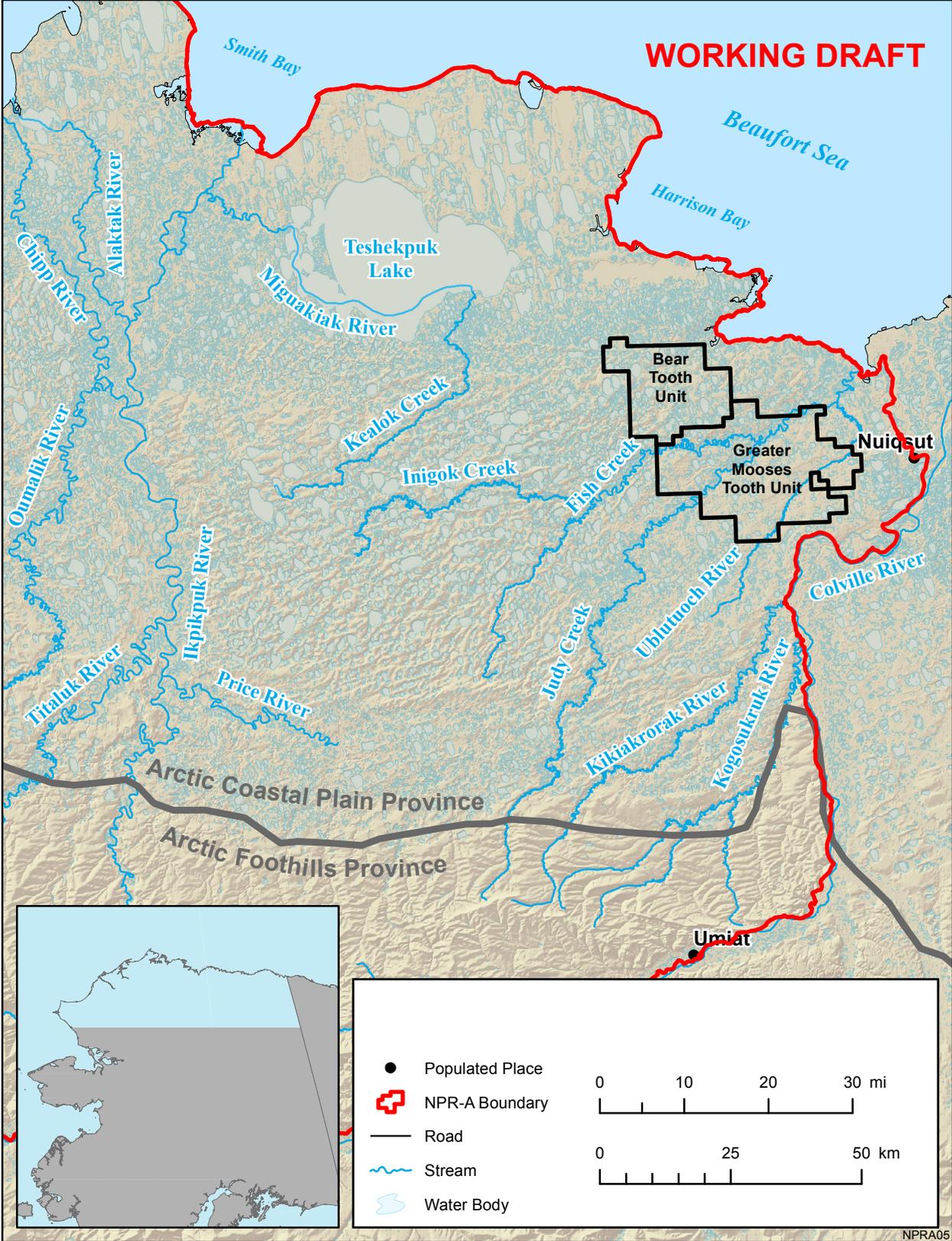
# Regional Mitigation Strategy for Northeastern NPR-A



## Outcomes:

- |   |   |   |  |  |  |
|---|---|---|--|--|--|
| <ul style="list-style-type: none"> <li>• Education about Regional Mitigation</li> <li>• Initial discussion on residual impacts of concern and mitigation ideas</li> </ul> | <ul style="list-style-type: none"> <li>• Geographic boundary</li> <li>• Residual impacts that warrant mitigation</li> <li>• Mitigation goals</li> <li>• Mitigation actions</li> <li>• Criteria to evaluate options</li> </ul> | <ul style="list-style-type: none"> <li>• Mitigation action nominations</li> <li>• Apply criteria and rank mitigation options</li> </ul> | <ul style="list-style-type: none"> <li>• Prioritized mitigation action list</li> <li>• RMS adaptive management approach</li> </ul> | <ul style="list-style-type: none"> <li>• Draft Regional Mitigation Strategy</li> </ul> | <ul style="list-style-type: none"> <li>• Final Regional Mitigation Strategy</li> </ul> |
|---|---|---|--|--|--|

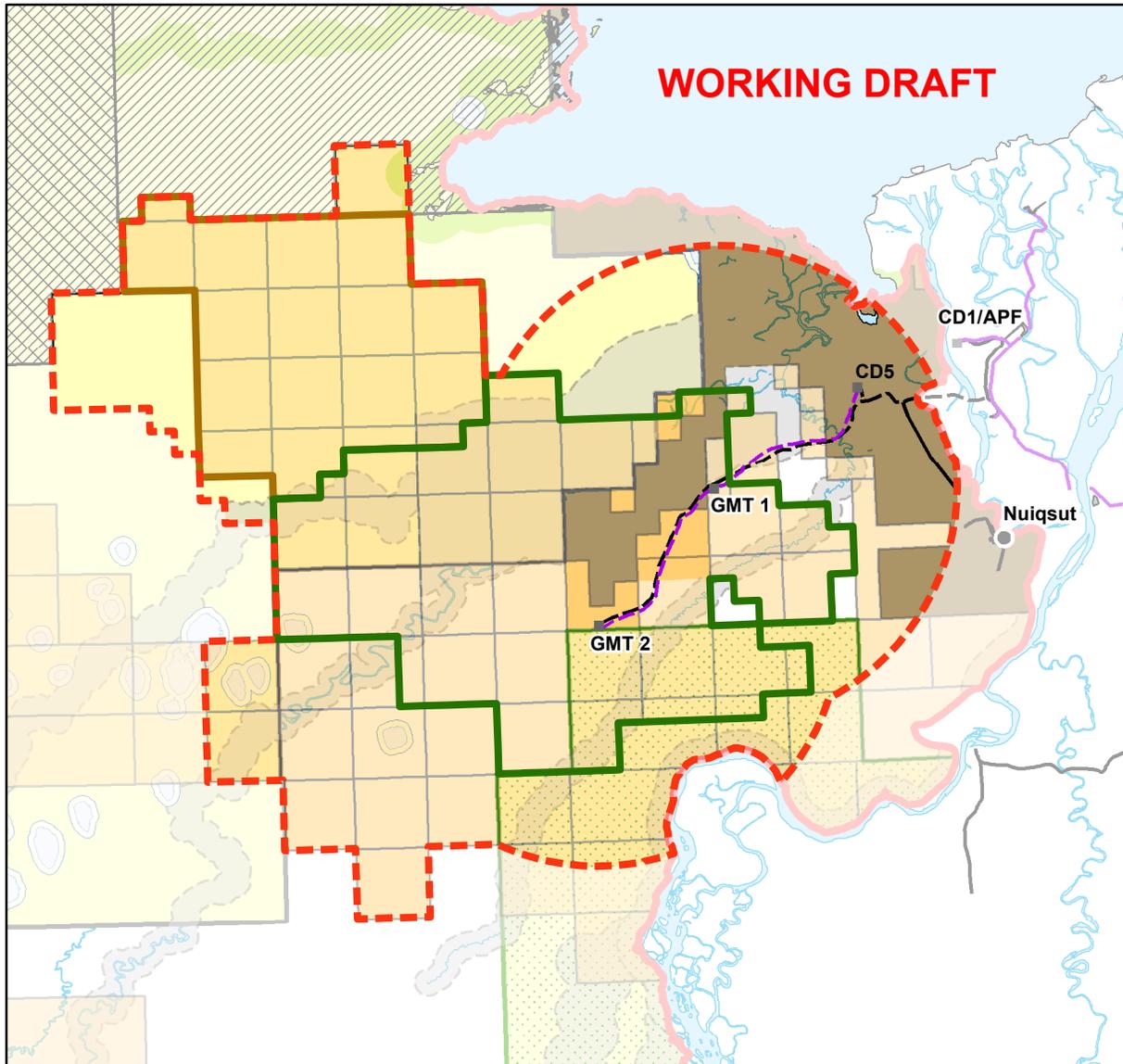
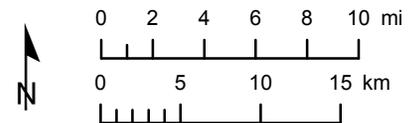
**WORKING DRAFT**



**WORKING DRAFT**

**Area for Reasonably Foreseeable Future Development**

- Populated Place
-  Area of Potential Future Development
-  Bear Tooth Unit
-  Greater Mooses Tooth Unit
-  NPR-A Boundary
-  Road - Existing
-  Road - Proposed
-  Pipeline - Existing
-  Pipeline - Proposed
-  Stream
-  Water Body
-  Deep Water Lake
-  Deep Water Lake Buffer (0.25 mi)
-  Coastal Buffer (0.75 mi)
-  Authorized Lease Tract
-  Unavailable for Leasing
-  No New Non-Subsistence Infrastructure
-  Raptor Protection - CRSA
-  Teshekpuk Lake Special Area
-  Colville River Special Area
-  River Setback Area
- Surface Jurisdiction**
-  Native Patent or IC
-  Native Selected



## Participant Comments – Large Group Sessions

The following comments were recorded by facilitators on flip charts at the front of meeting hall and by other BLM note-takers during the large group sessions.

### Day 1 – March 8, 2016

#### Overview / RMS Process and Document Outline

- It is essential that the RMS guarantee continued subsistence lifestyle for North Slope residents.
- Why is \$1 million from the \$8 million GMT1 compensatory mitigation fund being used by BLM for RMS planning? This money should not have been spent on the RMS, but should be spent on the impacted village of Nuiqsut.
- The total of \$8 million is not enough to build facilities – can't afford to divert any of that compensation to RMS development.
- Please don't make any more compensation deals with a one-time payment.
- Concern that it would not be possible to "value" subsistence foods (such as caribou meat) and have that be a factor in determining a fee for compensation.
- Communities are tired of being told how to spend funds and tired of having to compete for funds.
- This is not looking at the big picture. The RMS seems to be looking at just one little pot of money and who can spend it and how.
- Concern about enforcement of permit stipulations. BLM needs to ensure compliance.

#### Geographic Region Included in the Northeastern NPR-A RMS

- Local interests must be paramount and given great weight
- Concern for private lands / native-owned land and resources; the bottom line is we are fighting for self-determination
- Reminder that the RMS is to apply only to oil and gas development that is enabled or assisted by GMT1; have a hard time envisioning that development in Smith Bay or rivers farther to the west would meet that requirement. The region is too broad.
- Nomadic people / follow subsistence. Boundary lines do not work.
- Easements – Concern that if easements were identified they would constrain where we can hunt and fish. Further concern that easements would transition to a wilderness where hunting/fishing would be restricted.
- Need a RMS section laying out its core principles that would withstand time. Then have the RMS itself be more fluid, with a 3-5 year mitigation strategy more specific to the area of GMT1 development.
- Conoco's intent was that the RMS would apply to the areas of GMT1 and GMT2, not further afield.

#### Anticipated Future Oil and Gas Development in the NPR-A

- When/where would a new RMS be developed?
- BLM should consider the cost of a development project as a factor in determining the reasonably foreseeable development scenario. Concern that cost of mitigation can make a huge difference in whether a project can move forward.
- Nuiqsut is most affected by development. Needs of the community are most important. These needs are not being met. Working on this RMS and mitigation policies is repeating work and not meeting Nuiqsut needs.
- There are many types of impacts. Social, cumulative, subsistence, health – these all must be addressed. Concern that social is not being addressed in the community.

### Unavoidable Adverse Impacts that Warrant Compensatory Mitigation

- On page 3 of the impacts document, change “avoidance” of oil and gas development areas to “Discontinued use of traditional areas” (Note – This comment was made during the Regional Mitigation Goals session, but was applicable to the Impacts session.)
- Applicability of RMS to private-selected lands (e.g., GMT2 is on land selected by Kuukpik, but still BLM-managed)
- Other impacts of concern: fracking impacts (big impact in the Lower 48)
- Concern about use of the phrase “avoidance of developed areas” (on p. 3 of the *Unavoidable Adverse Impacts that Warrant Compensatory Mitigation* handout in the binder) – Concern and confusion that this language used means subsistence hunters are being prohibited from going there
- Concern: noise pollution should not be designated as a “minor” impact

### Regional Mitigation Goals

- Concern about feeling of being regulated by this complex RMS. Focus is to assure our subsistence way of life. Concern about noise and air pollution.
- Goal #2 – insert “...and rights” after “opportunities”
- Need to explain how the goals are used in ranking mitigation actions
- Concern about loss of sovereignty. Do not like having to participate in this large-group workshop outside of the North Slope region, with environmental and other non-North Slope stakeholders.
- Important to have the meetings within North Slope communities and with Tribes – at home, where people can attend or listen on the radio.
- There needs to be government-to-government consultation.
- This is a big change in how the federal government is doing business and does not feel like it will result in something that will help North Slope residents
- Concern requirements and fees will be too great and will discourage oil and gas development. We rely heavily on oil and gas and need to do this RMS in a balanced way to they can continue to develop – we need tax revenues to provide services to the North Slope.
- Goals do not comply with the federal Alaska National Interest Lands Conservation Act (ANILCA) protections for subsistence.
- Object to the word “maintain” – this feels like federal interference and control, feels like rules and regulations that would affect us
- Concern about environmental stakeholders’ involvement – they are not affected as are North Slope residents; concern about possible ties with animal rights groups
- Local voice and control is essential
- Self-determination is essential
- NPR-A Working Group passed a resolution asking BLM to let the WG help develop the RMS, but have not received a reply from BLM
- Recommend replace the word ‘maintain’ with “sustain and enhance” in the goals – this put the emphasis on strengthening the things we care about
- North Slope Borough municipal code has criteria that development must meet to obtain borough permits; perhaps do not need to duplicate these with RMS goals
- Tribes need to be at the table with BLM, for all the right reasons.
- Must hear from people affected directly
- Concerned that North Slope Native corporations have not been as involved in the oil field as others (e.g., Doyon). Our Corporations and our eight villages and shareholders should be the ones benefitting from development projects, contracts and jobs.
- The mitigation goals should include language about North Slope residents benefitting from the economic development, through jobs and contracting.

- The RMS should include language that says local/private resource owners will be at the decision-making table with BLM throughout the process.
- Inupiaq Community of the Arctic Slope (ICAS) hunter/gatherer commission – with a focus on effects of global climate change – that could be a vehicle to help BLM try to resolve the villages’ subsistence issues and problems.

### **Estimating Compensatory Mitigation Fees – Large Group Session**

*NOTE: The following comments were offered following the presentation on Estimating Compensatory Mitigation Fees (in a large group plenary session). Comments from the four small group discussions of how to estimate compensatory mitigation fees are provided in Attachment 8.*

- Concern that note-takers do not always write down concerns and comments accurately. Our concerns must be recorded accurately, compiled, and reported accurately to the Secretary of the Interior and other decision-makers.
- No confidence that what the North Slope residents are saying is really being understood and then communicated fully and accurately in the meeting summaries.
- Request that comments made in the small groups by North Slope residents be noted, so local voices and comments can be identified.
- Anaktuvuk Pass is experiencing very real impacts to its subsistence and the community – High costs fuel, food, freight, transportation. Lack of caribou to harvest in fall 2015 and wonder if they will get the spring migration. Strong appreciation that other villages have shared subsistence foods (caribou, maqtaq, seal). Anaktuvuk is always impacted, from all types of federal actions (e.g., National Park Service).
- Management of compensation fund can be divisive between communities and within the region (“like dogs fighting for a bone thrown in the air”).
- Need to bear in mind, important to have oil and gas development on North Slope. Do not want regulations and fees to keep development from happening. We all need to be mindful of not wasting money, when there are so many needs.
- When trying to determine compensatory mitigation fees, focusing on negative impacts from development; need to also consider the positive beneficial impacts.
- North Slope communities have such basic needs (e.g., housing, sewer and water), but we do not get the help we need with this from any government or organization. The RMS process seems to focus on subsistence, but basic human needs are not being met.

## **Day 2 – March 9, 2016**

### **Mitigation Action Nominations**

- Concern about the State of Alaska NPR-A Impact Grants program – over its history, only a small amount of the funding has come to the most impacted community, Nuiqsut.

### **Screening and Ranking Criteria**

- Want BLM to consult with stakeholders in applying the criteria and deciding which mitigation actions are selected
- Need to take all this info home to consider before it gets approved, this doesn’t seem to be in the process
- The RMS needs to be communicated through diagrams (e.g., overall process diagram). We are a visual people.
- Support criteria that give more weight to Arctic voices.
- The RMS needs to emphasize strengthening the rights of North Slope residents – concerned that the document will be used in the future to restrict their rights (especially hunting).

- Concern that mitigation actions related to management and control of sport hunting – and reduction of those impacts – would not pass the screening criteria and would be considered an “unqualified” mitigation action. (Concern it would not be considered to be “additive”).
- (Previous comment followed by discussion of concerns related to sport hunting impacts and insufficient monitoring.)

### **How the RMS Will Be Used**

- How to figure the compensatory mitigation fee? Example?
- BLM should consider also having public meetings in North Slope villages outside of the NPR-A.
- Not all Applications for Permit to Drill (APD) would require BLM to conduct a new NEPA analysis before they make a decision regarding issuing the permit.
- Wants to make sure that BLM will *not* follow the current process/pattern for the State-managed NPRA impact funds. That process doesn’t work and doesn’t achieve the goal of providing funds to the most impacted communities.

### **RMS Next Steps**

- North Slope caucus – Asking BLM for the NPR-A Working Group and North Slope communities to review a pre-draft document for 90 days, before release of the public review (very strong request).
- There needs to be meetings in all NPR-A communities so they can understand the proposed RMS and comment.
- Request that the date of October 2016 for the final RMS be extended as necessary, to assure more time for review of the pre-draft and draft documents. These reviews are essential to local understanding of the document and participation in the RMS development.
- Review periods have to be long enough – and properly timed – so that North Slope entities with regular monthly meeting dates (e.g., ICAS) can schedule the draft for discussion and develop comments.
- These larger workshops are not conducive to North Slope entities coming up with own proposals for the RMS.
- There are no quorums of any North Slope community or entity at this workshop – so the workshop participants from the North Slope cannot speak on behalf of their villages or their organizations.
- Concerned that the President and the Secretary of the Interior have objectives not aligned with those of North Slope residents – concerned for self-determination and local control. (Recalling closure of subsistence bowhead whaling in 1977 by the President and the anxiety and stress that caused, unless the AEWC was formed and, through cooperative management, subsistence whaling could begin again.)
- Asked BLM to consider the NPR-A Working Group resolution passed in September 2015.

## Participant Comments – Small Group Sessions

### Estimating Compensatory Mitigation Amounts

To discuss a possible methodology for estimating the amount of compensation that would be required to mitigate for impacts of future developments, workshop participants divided into four small groups focused on the topics listed below.

The small groups were asked, “What approach should BLM use – and what factors should it consider – when it makes decisions about compensatory mitigation fees for future development?” The following questions were offered to help start the small group discussions:

1. What specific unavoidable impact are you considering?
2. How would you approach determining compensation for this impact?
  - What loss (or losses) should be compensated for?
  - How would you measure the value of the loss?
3. What information or data would be needed for your approach?

These proved to be very challenging questions to address. Nevertheless, the small group conversations contributed to BLM’s understanding of impacts of concern, the value of resources impacted, and mitigation actions that could address these impacts.

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#### I. Direct Impacts to Subsistence

- Loss or avoidance of traditionally used and culturally important areas.
- Access to subsistence areas
- Discontinued use of traditional use areas affected by development
- Aircraft disturbance
- Disruption of migrating subsistence species.

Facilitator & Note-taker: Mike Dwyer, Steve Cohn  
NSR = indicates North Slope resident comment

- One-time fee doesn’t make sense for the life of the field. Needs for the community might change over time. The term of the field should affect the fee. Prudhoe Bay >50 years. (NSR)
- Need to think of impacts over decades – not a one-time thing. (NSR)
- Mistake for BLM to put a price on the GMT1. Prudhoe Bay keeps getting closer. Changed migration routes (helicopters), numbers of caribou. EIS – Section-by-section analysis doesn’t capture the overall affect. People don’t hunt and fish anymore because of the effect of development. The meetings have taken over our lives. Need to look at bigger picture. (NSR)
- For the community of Nuiqsut, Kuukpik is blamed, but Kuukpik is fighting too. There are unmet needs in the community (such as sewage) that are much greater than just subsistence (such as housing shortage.) Kuukpik was supposed to be for-profit company, but has had to focus on social services in order to meet the needs. Could compensation be based on proximity to the community? Could be adjusted as development happens. The land is important, but the people are important. (NSR)
- Traditional knowledge needs to be inserted as a baseline. It will get harder to subsist (Fish Creek Area) (NSR)
- Need to use traditional knowledge more. Don’t want others to speak for us. Regulations can affect my way of life. Rules in wildlife preserves can make people criminals for pursuing their

Attachment 8 – Participant Comments  
Small Groups – Estimating Compensatory Mitigation Amounts

way of life. The communities share subsistence harvests. Environmentalists should take a step back; make sure way of life is not affected. More important to culture than just animals. Culture cannot be sustained without some kind of development. Needs to be a balance. (NSR)

- The State needs to be involved. ADF&G regulates wildlife. DEC regulates air quality. Need to account for air quality. They need to be more engaged in this process. (NSR)
- Migration of birds between south and north of the Brooks Range ties communities together. Caribou. Worry about the development, but it is in the North Slope. Doyon wants to grow with Alaska. Values are our land and our people. Believe in responsible development – need to strike a balance. North Slope residents have development right next door. (Central Yukon resident)
- Fur bearing animals – easy to blame industry, but have to be mindful of other factors, (like predators) If populations get too big (protected when they are endangered), can create an imbalance. Everything has a natural cycle. Have to take care of animals, like a garden. (NSR)
- Subsistence is putting food on the table. People have 8-5 jobs and work, but 90% of food is from subsistence hunting. The store supplements diet, but hunted food is at the base. This is a way of life, keeps lives in order. Seasonal cycles. Whales, seals, caribou. (NSR)
- Q: What makes subsistence possible?
- It's our sequence of life – follow the seasons. Balance of creation. Basic social services in community not being provided however. Once we get out of sync with the seasons – can affect the balance. (NSR)
- Even before development came, there were periods of starvation – because the animals were not present. People have been taught – don't hunt the first animals. There are lots of factors. Sometimes you have to go very far, sometimes the animals are right in the village. This is a dry winter – will they have enough to eat? (NSR)
- Helicopter traffic. Harvest caribou in winter – dry in summer. Two years of traffic was least productive in entire lifetime. Felt it in Barrow (30 caribou → 10 caribou). (NSR)
- Need to find that fine line. Kuukpik meets with Conoco. Agreements to be a good neighbor, but BLM & State fly when they do their research studies. Can cause problems for caribou. All the players need to be more cooperative – less traffic, avoid hunter conflicts. (NSR)
- Wainwright – agreements with Shell – asked them not to fly or sail during hunting seasons, and they agreed. Government researchers, however, would fly without coordination w/ communities. Feds need to learn how to be good neighbors. National Science Foundation for example – They fund multiple studies, but there is no coordination. (NSR)
- (NSR/C. Yukon): There's no price on subsistence. Farmers get a subsidy. Why not a subsistence subsidy? There are many studies of North Slope people. Fewer studies – more support. (NSR, Central Yukon)
- Studies year round. Exploration (seismic) – need to look at studies – are they steady or do they spike? If resources stay steady, why study every year? Could study less frequently. For example, study every three years instead of every year if conditions aren't changing. A good way to eliminate extra flights. (NSR)
- Question: Who in BLM tracks the number of flights and what they are doing? (NSR)
- Subsistence way of life is priceless. Survey – cost-benefit analysis – fairer assessment. (NSR)
- Don't want to put a monetary value on it. (NSR)

## II. Socio-cultural impacts closely related to subsistence

- Economic impacts of reduced availability of subsistence foods
- Less teaching of subsistence way of life across generations
- Reduced engagement in subsistence-related ceremonies
- Decreased sharing
- Decreased cooperative hunting and fishing
- Increase stress from impacts to subsistence lifestyle
- Feeling of loss due to development impacting culturally important areas

Facilitator & Note-taker: Stacie McIntosh, Stacey Fritz

NSR = indicates North Slope resident comment

- Specific Impact: Less Teaching of subsistence way of life across generations (NSR)
- Loss: Less people practicing subsistence because they don't have knowledge (NSR)
- Value: Number of people participating in subsistence (NSR)
- How do you value the number of people not hunting that is a direct impact of oil and gas development vs. some other cause of impacts? (NSR)
- Look at existing NPR-A Impact Fund, which also applies to development royalties, and build off this current process so that those monies are used to assist with identified impacts.
- Whatever decisions about money is made, the decisions need to be sustainable. Also, management needs to be adaptive and built into the design of RMS, because we are only guessing at impacts now. In three years, there could be different impacts experiences based on reality. (NSR)
- Primary issue of subsistence impacts is the impact to health this is happening in rapid/condensed rate – this issue of primary importance due to dire consequences that are happening at rapid rate. (NSR)
- NSB did Health Impact Assessment, and there are same indicators of poor health in communities that are not close to oil and gas development, so how can you say oil and gas is causing? (NSR)
- Should be exemptions for communities regarding roads that they do not have to pay RMS fee (NSR)
- In 1930s government came into Barrow – to explain what was going to be land for state of Alaska Territorial. Government said, “You need to decide what to do with your land”. They didn't say anything about oil and gas. Language barrier. But they did work on maps. However, it didn't work out like that. There needs to be a way for federal government NOT to dictate what should happen. Instead – there should be compacting agreements with tribes so they can manage/decide. (NSR)
- Empowerment at local level (NSR)
- Responsibility of parents to teach children, no way should be given to government to do this – our responsibility (NSR)
- Local residents need to focus on self-determination, and empowering local people. Need to be able to see through the federal government/state government plans/doings (NSR)
- Compartmentalizing tears people apart; communities need to be able to come together to decide their future together to be empowered. Good example is the Alaska Eskimo Whaling Commission (AEWC) and the Agreement AEWC has with federal government (NSR)
- Compacting with government to help tribes so they can participate (NSR)

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- One way to value impacts can quantify amount of time spent by tribes to participate (time, travel, operational fees). Need support for Tribal capacity. (NSR)
- Need to also consider the positive impacts of oil and gas, because this needs to be factored into the analysis
- Local residents view negative impacts as more important in factoring this because the negative impacts are so great. There are positives but they do not outweigh the negative. (NSR)
- There is a background acculturation process but what needs to be the focus is what aspects of our culture need to be retained. (NSR)
- Fee implications: could be negative consequences if tied to impact determination (i.e., moderate, minor, etc) because then there could be disagreement/fight over impact determination because people want impact funds. Could compromise NEPA process.
- How can you measure stress or less stress?
  - Stress = loss (NSR)
  - Possibly – can measure number of meetings, number of hours spent on individual projects/EIS input/having meetings/reading documents. (NSR)
- The oil and gas company goal should be being a good steward of land and good neighbor – worried that small cost of this would stop project; seems overblown (e.g. \$900M project was charged a \$8M fee)
- There must be literature on damage assessment, workman’s com numbers that could be used
- Value of native allotments, value of trespass on these private lands (NSR)
- Value of allotment is diminished when it is in proximity to oil and gas; could determine value of allotment (NSR)
- \$/pound of subsistence food should not be used
- It is common to have to go out 30 miles and pay money for gas, so trying to put a value on pounds of food needs to take a lot of info for it to be accurate (NSR)
- Value of land? See value of allotment comment (NSR)
- There is a general lack of accountability by anyone/everyone (no single company) who are causing impacts. There has to be a way to get away from “it is global climate change not us”. Sport hunters are accountable, Dalton Highway travels are accountable, etc. (NSR)

### III. Other Socio-cultural impacts (Less related to subsistence)

- Stress, conflict and time burden associated with participation in development-related permitting
- Alcohol, drugs and other negative cultural interactions
- Public health impacts

Facilitator & Note-takers: Molly Cobbs, Bob Sullivan, Heidi Hartmann  
NSR = indicates North Slope resident comment

Topic: participation in development related permitting

- Legal and regulatory impacts – costs money to get legal support and to review documents and regulations. (NSR)
- Time to participate, review. (NSR)
- Education – Grant-writers needed in communities. Document social/cultural impacts coming to/felt by communities. (NSR)
- Local capacity building (ownership and knowledge of local need). (NSR)
- Compacting with tribal organizations – can help with capacity building, and could benefit K-12 education system. (NSR)
- “Educated” educators – aware of social/cultural impacts in villages – currently no \$ for this
- Agencies need to explain their responsibilities. (NSR)
- Community residents need to know how to participate in processes – would help spread the reviews. Currently, the community leaders take on these responsibilities. (NSR)
- Agencies need to share benefits/positive outcomes. (NSR)
- Travel costs, time away from families, time away from duties. Need better use of video conferencing, cut down on travel, communications upgrades, and better tools. Lack of communications = decreased participation (docs won’t download, too slow). (NSR)

Topic: Change in community lifestyle and culture

- As industry moves in/forward, communities will lose language and culture. (NSR)
- Transition to business from culture – cost of education, transition to office/city. (NSR)
- Loss of lifestyle (living in village) – personal sacrifice of being away from village, family, hunting/fishing. (NSR)
- Community cost of lost leadership opportunities – choice between living traditional/village lifestyle vs. city lifestyle influencing decisions may dissuade future leaders. (NSR)
- Benefits of oil and gas not discussed/expressed enough. (NSR)
- Time to learn new areas to hunt; may affect hunt success. (NSR)
- Sense of loss/trying to live in both worlds (NSR)
  - Loss of self identity, confusion, conflicted between leaving for jobs or staying in community, providing for community
  - Suicide rates increasing
  - Substance abuse increasing
  - Loss of language
  - Loss of knowledge of hunting practices
- Change from subsistence lifestyle to “western” lifestyle = difficult transition. (NSR)
- Increased substance abuse as a result of confusion, stress from lower hunting success, stress passed on to children. (NSR)
- No guidance on how to deal with western “drama” and issues. Leads to social problems. (NSR)
- Shift in focus from hunting and fishing to money, business, and land. (NSR)

Topic: Dealing with non-local voices

- Outside interests (environmentalists) have a big impact (NSR)

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- Concern that outside groups know interests of communities, but communities don't know interests or "agenda" of the outside groups (NSR)
- Environmentalists say "protect the land" – but may leave out important additional information (e.g., "protect the land FOR SUBSISTENCE") (NSR)
- (Comment from member of The Wilderness Society) – Notes that they do not think they fully know the interests of the communities.
- Creates mistrust. (NSR)
- Communities that are "desperate" to have voice heard by agencies turn to conservation groups as a forum. (NSR)
- Sharing and discussing goals and agendas – open discussion. (NSR)

Topic: Quality and access to healthcare

- Slow to diagnose (NSR)
- Cancer rates, suicide rates (Nuiqsut one of the highest rates) (NSR)
- More information needed, "facts" (NSR)
- Community divided on oil and gas development. Leads to stress which leads to illness (NSR)
- Community effort (not health system) to educate community (Nuiqsut spends \$300K/yr to help elders) (NSR)
- Lack of preventive care, eligibility barriers to getting healthcare (income levels, process/procedural) (NSR)
- Loss of parent/grandparent to cancer or disease (NSR)
  - Loss of family structure that leads to loss of opportunity to go to family camps, loss of passing on information, family info (NSR)
  - Kids learning through culture camps, but money is dwindling, and don't offer sense of ownership in camps (since they are more general) (NSR)
  - Family camps start to deteriorate (NSR)

Additional Comments:

- Village Corporation ends up providing social services, drain on shareholders, corporate resources (NSR)
- Blue Ribbon committees – identify substance sources (NSR)
- Loss of young lives greatly affects community leaders (NSR)
- Educate and Advocate value of every individual to community (NSR)
- Questioning what went wrong. What could have been done differently? Takes a lot of time, energy. (NSR)
- Incoming teachers don't know the language. (NSR)
- Community leaders need education on oil/gas development (site tour, how it works, etc.) (NSR)
- Cumulative effect of climate change and oil and gas development. Habitat impacts have affected wildlife populations. (NSR)
- But game managers are taking it out on hunters, penalizing by adding quota to hunting; "selective enforcement". (NSR)

#### IV. Fish and Wildlife impacts

- Birds
- Fish
- Mammals
- Threatened and Endangered Species (polar bear, spectacled eiders)

Facilitator & Note-takers: Jan Caulfield, Debbie Nigro

NSR = indicates North Slope resident comment

- Impacts to fish-bearing lakes (NSR)
  - Whitefish
  - Water withdrawals for ice road construction
  - Water quantity issue
  - Ponds dry up and fish habitat lost / fish lost
  - Want more monitoring to verify the amount withdrawn – not over withdraw and impact fish
  - Use local observers/monitors
  - This will benefit both the community and the agency
- Even exploration and temporary work can have impacts on the landscape and resources
- Want no impacts when possible – AVOID. (NSR)
- Identify some areas where impacts are unacceptable / some areas where impact can be acceptable. (NSR)
- Possible mitigation actions:
  - Perhaps compensation fee paid for one project could be used to protect / set aside other areas where development would not occur. (NSR)
  - Compensation action might include – if access to subsistence area is lost, perhaps can open up access for hunting & fishing in areas where that is currently not allowed. (NSR)
  - Compensate through enhancing fish habitat in others areas. (NSR)
  - Mitigation action might include stocking waters with fish, provided they are from a local source and are not genetically modified. (NSR)
- Concern about fish mold and unhealthy fish (e.g., burbot livers). (NSR)
  - This is result of cumulative effects of a warmer environment. (NSR)
  - Concern that no one is taking responsibility for their long-term operations contributing to climate change and warming environment. (NSR)
  - Possible mitigation action – may be acceptable to compensate with burbot from the Noatak River (not the Colville River). (NSR)
  - Eating these fish creates:
    - Health and stress impacts / cancer (NSR)
    - Medical costs (NSR)
    - Family disruption when family members are sick or die (NSR)
- Cannot just replace one subsistence food with another – animals from different places are different. (NSR)
- Important to have safe subsistence foods. (NSR)
- Fish Creek is important for many species. After development of CD-5 last year, the local fisherman caught fewer fish. (NSR)
- Thinking about “value” and factors for BLM to consider in determining compensation fee – What environmental / landscape function is needed to support the ecology and the biological processes. What is the VALUE of those functions?

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- Concern about caribou movement being disrupted. Caribou displacement and herd declines (Anaktuvuk Pass examples). (NSR)
  - Losses:
    - Food security (NSR)
    - Loss of participation in subsistence activities, between generations (NSR)
- Potential mitigation action – compacting between Tribal organizations and management agencies (such as the Alaska Eskimo Walrus Commission). (NSR)
- Benefits to this type of co-management (NSR)
  - Brings in federal dollars to the region
  - Builds local capacity
  - Local ownership / self-determination
  - Durable approach
- Concern about roads creating an obstacle to caribou migration (such as studies have shown on the Red Dog Mine road) (NSR)
- Concern about muskox introduced into caribou habitat in region without Tribal consultation. (NSR)
- Impacts of harvest management - Concerns about how agencies manage hunting – selective enforcement that target native people; fines. Concern that they are managing the people, not the resource. Agencies need to work with Inupiaq people to build the populations of fish and wildlife – not just put on quotas and do selective enforcement. (NSR)

## Compensatory Mitigation Amount - Worksheets

In addition to participation in small group discussions regarding compensatory mitigation amounts (see notes in Attachment 8), workshop participants were given the opportunity to submit written comments on a worksheet. Seven worksheets were submitted and are included in this attachment.

### Worksheet #1

#### **What specific Impact are you considering on this worksheet?**

- The value of subsistence itself
- The value of lost habitat and ecological services

#### **How would you approach determining compensation for this impact?**

##### **Describe the loss (or losses) that should be compensated for:**

- Reduction in subsistence harvest (loss of nutritional value, cultural experience, passive values)
- Impacts to species health
- Loss of wetlands & their services (filtering water, buffer)
- Loss of access to land

##### **How would you measure the value of the loss?**

- Contingency valuation surveys (I previously designed one for subsistence, would be glad to share)
- Meta-analysis of past efforts to value Alaska subsistence and habitat (I'm glad to share article on this – Ristroph & Hussain 2015 – Wilderness: Good for Alaska – this article also explains that the Wilderness Act does not prohibit subsistence (which was a common misperception stated throughout the meeting)

#### **What information or data would you need for this approach?**

- Willing survey participants (Tribes, Corporations) must be willing to support and encourage participation, May need monetary compensation for doing survey)
- Hire researchers to conduct literature review – meta-analysis

### Worksheet #2

#### **What specific Impact are you considering on this worksheet?**

- Direct subsistence impacts

#### **How would you approach determining compensation for this impact?**

##### **Describe the loss (or losses) that should be compensated for:**

- Direct loss of subsistence use areas
- Reductions/adverse impacts to subsistence resources and displacement/shifting of resources
- Increased industrial activity (flights, noise, etc.)
- Increased costs/risks
- Cumulative impacts with development as a whole

##### **How would you measure the value of the loss?**

- Because of the difficulty in quantifying and putting a dollar figure on impacts, BLM should focus less on trying to put a value on subsistence and the loss. It would make more sense to focus on the mitigation measures that need to be achieved to meaningfully mitigate against the adverse impacts of development; this will ensure there is an adequate amount to move those mitigation measures forward. Otherwise, the value based on subsistence may not be enough to achieve meaningful mitigation.

**What information or data would you need for this approach?**

Information on the impacts and ways to meaningfully mitigate against those impacts for the life of the project / duration of the impact.

**Worksheet #3**

**What specific Impact are you considering on this worksheet?**

- Subsistence lifestyle

**How would you approach determining compensation for this impact?**

Meetings and documenting of the people affected

**Describe the loss (or losses) that should be compensated for:**

- Extra time and concerted effort in search of subsistence foods

**How would you measure the value of the loss?**

- Document the harvest rate through surveys of households to correctly account for positive/negative impacts. This way statistical data clearly can represent concerted efforts in search of traditional foods.

**What information or data would you need for this approach?**

- All parties involved, would have to agree ahead of time to this approach.

**Worksheet #4**

**What specific Impact are you considering on this worksheet?**

- Sociocultural subsistence impact

**How would you approach determining compensation for this impact?**

**Describe the loss (or losses) that should be compensated for:**

- Increased reliance on western diet as subsistence foods are less available – results in health impacts

**How would you measure the value of the loss?**

- What are costs of high quality diet and health impacts from loss of subsistence?

**What information or data would you need for this approach?**

- Review literature from impact assessments, workman's compensation, etc., for analogous models
- BLM needs to survey community to identify goals they hold for continued practice of traditional lifestyle.

**Worksheet #5**

**What specific Impact are you considering on this worksheet?**

- Loss of rights to economic freedom

**How would you approach determining compensation for this impact?**

- Directive from the Secretary to create alignment by compacting with local organizations to administer programs, co-manage lands.
- Set 20% of BLM budget for direct funding to local organizations.

**Describe the loss (or losses) that should be compensated for:**

- Loss of economic opportunity for Tribal, local governments and Native Corporations to administer co-management of lands, co-management of programs, creating positive relations, enforce rules and regulations. Develop communication plans and work closely with BLM to foster long terms alignment with stakeholders.

**How would you measure the value of the loss?**

**What information or data would you need for this approach?**

- Look at co-management of bowhead whale harvest between AEWC and NOAA.

### **Worksheet #6**

Keep the dollars in one safe pile. Interest only compensation.

**What specific Impact are you considering on this worksheet?**

- The Alaska Constitution, Article 81-17.

**How would you approach determining compensation for this impact?**

**Describe the loss (or losses) that should be compensated for:**

- Local users' use is the bar established for reference.

**How would you measure the value of the loss?**

- Local interviews to determine alternative resources.

**What information or data would you need for this approach?**

- Local input.

### **Worksheet #7**

**What specific Impact are you considering on this worksheet?**

- All of them. Don't parse it.

**How would you approach determining compensation for this impact?**

**Describe the loss (or losses) that should be compensated for:**

- All of them.

**How would you measure the value of the loss?**

- FLAT RATE of \$10 million per
- Pad - \$4 million
- Road - \$3 million
- Pipeline - \$3 million

**What information or data would you need for this approach?**

- Very little.

## Participant Comments – Small Group Session

### Potential Monitoring Indicators

Workshop participants were asked to identify measures that can be monitored in the future to evaluate whether the RMS is achieving the proposed RMS Goal 3. The proposed goal read: “Maintain the functionality of the ecological system, including landscapes that allow for sustainable populations of fish and wildlife and their natural movement and distribution.”<sup>12</sup> Responses from the group included:

- Movement and distribution of fish and wildlife species  
(Data sources: ADF&G, North Slope Borough, USFWS, NPS, industry)
- Harvest numbers and patterns
- Need further definitions of the phrase “enhance the functionality of the ecological system” – what is meant by that? List the ecological functions of concern, then determine the specific parameters to monitor.
- Monitoring by local people (e.g., Native Village of Nuiqsut) – trained by agencies
- Traditional knowledge – a data source for monitoring, related to all of the goals
- BLM needs to be cognizant of the impacts of the monitoring process, itself (e.g., field activity, aircraft over flights)
- Need to identify what environmental parameters are already being monitored, the data that is available to BLM for monitoring purposes, and the gaps.
- Sources: North Slope Rapid Ecological Assessment (REA), North Slope Science Initiative (NSSI), Arctic Council circumpolar monitoring plan, BLM resource specialists, other agencies & academia)
- Need to ensure that monitoring data is available to all stakeholders

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<sup>12</sup> Note that comments were made during the workshop recommending that the goal be changed to “Sustain and enhance the functionality of the ecological system....”