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APPENDIX

Appendix A: Survey Instrument
Appendix A: Survey Instrument
NMWC-BBNA-UAA Information Request

The purpose of this questionnaire is to develop an effective communication plan to help serve you better. We need your ideas & suggestions on the kinds of information you feel is most appropriate to receive about the proposed Pebble project. We also want to know about the kind of information you find most useful. This survey is front and back. Thank you for your time filling out this information request.

Your most current contact information:

Name & Position/Title: ________________________________________________________________

Organization: __________________________________________________________________

Address, City & Zip: __________________________________________________________________

Phone(s): ___________________________ Fax: ________________________________________

Email(s): ________________________________________________________________________

My age: _______ years old.

The best method for me to receive information about the proposed Pebble project is through:

__ Web site
__ newsletter - my preferred method to receive newsletter: mail ___ fax ___ web site ___
__ faxes
__ through my community or regional leader/representative
__ other (please list) ____________________________

Do you have access to a working computer? ___ Yes ___ No

About how often do you log on the Internet (i.e. World-wide web)? (check one)

__ none at all
__ sometimes
__ weekly
__ daily

How well do you get around on the Internet?

____ I don't know how to use the Internet and would benefit from a short training course
____ I kind of know how to use the Internet, but would still benefit from a training short course
____ I can find my way around the Internet OK
____ I can navigate the Internet with ease

Please tell us what information you find most important to have on the Website. (1 is most important, 5 is least important.)

____ Links to agencies working on the same areas
____ Baseline studies, reports, publications
____ Surveys similar to this one
____ Information on the NEPA/EIS and permitting process
____ An interactive bulletin to share my questions, comments and concerns

Nushagak-Mulchatna Watershed Council Meeting
December 15 & 16, 2005, Dillingham, AK
Rank the following categories regarding Pebble information, in order of importance to you. (With 1 being most important, 6 being least important.

_____ Proposed Pebble mine plans (infrastructure, extraction methods, layout)
_____ Environmental research (water quality, baseline fish & wildlife research)
_____ Socio-cultural research (subsistence issues, traditional land use areas)
_____ Socio-economic research (population, jobs, infrastructure)
_____ Environmental health (environmental toxins, water quality)
_____ Permit process (timelines, agencies involved, residents input)

Please share a written comment on 1 Environmental issue you feel is important (i.e. fish, wildlife, water)

_________________________________________________________

_________________________________________________________

Please comment on one Socio-cultural issue you think is important (i.e. subsistence, land use)

_________________________________________________________

_________________________________________________________

Please comment on one Health issue you think is important (i.e. toxin release, water quality)

_________________________________________________________

_________________________________________________________

Please write a comment on 1 Mine Plan issue you think is important (i.e. pit, tailings, road, extraction)

_________________________________________________________

_________________________________________________________

Please comment on 1 Permit issue you think is important (i.e. Pebble timeline, NEPA, EIS)

_________________________________________________________

_________________________________________________________

Please provide additional comments or questions you feel would help us most effectively serve you and other residents of Bristol Bay. Quvana for your time and input!

_________________________________________________________

_________________________________________________________

_________________________________________________________

Nushagak-Mulchatna Watershed Council Meeting
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B1: Bristol Bay Native Association Board Presentation, Oct. 3, 2005
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PEBBLE MINE ISSUES AND
BRISTOL BAY NATIVE
COMMUNITIES: ASSISTING
WITH “UNMET NEEDS”

Presentation to:
BBNA Board of Directors
Oct. 3, 2005

Presentation by:
Steve J. Langdon, Ph.D.
Dept. of Anthropology and
Institute of Social and Economic Research
University of Alaska Anchorage
BBNA’s “UNMET NEEDS” PROPOSAL

- BBNA’s goal through project is to assist Native communities in responding to the proposed Pebble Mine development.
- "Unmet needs" proposal was developed to provide BBNA communities with technical assistance in several areas.
- UAA/ISER was selected by BBNA in August to provide technical assistance.
TYPES OF “UNMET NEEDS”

- Independent technical review of planning documents and research reports;
- Training of BBNA community representatives concerning NEPA and State review processes including permits;
- Development of a communication plan to enhance flow of information to and among communities, their leaders and residents from BBNA and UAA/ISER staff.
Technical Assistance for Whom?

- Funding source – IGAP
- Primarily Bristol Bay Tribes
- Capacity building to address Pebble Mine development processes at local level
- Point of primary contact – Nushagak Mulchatna Watershed Council
Technical Review Areas

- Biological (environment)
- Water quality and quantity
- Air quality
- Terrestrial and aquatic habitat
  Alteration
  Loss
- Disturbance of wildlife
- Accidents
  Explosives
  Petroleum products
  Hazardous materials

- Social (people)
- Sociocultural impacts –
  Subsistence resources
  Access
  Competition
- Socioeconomic impacts –
  Types of jobs
  Needed training, contacts
- Land use
- Land management
- Cultural resource issues
- Archeological resource issues
Technical Review Responsibilities

- Biological (environment)
  Conducted by LGL Associates and Bristol Bay Science and Research Institute (BBSRI)

- Social (people)
  Conducted by UAA/ISER
Technical Review of What?

- Baseline studies – sociocultural and socioeconomic areas
- 2004 baseline research review
- 2005 baseline research review
- 180 Question List
  Reviews include recommendations for needed research

- Considerations
  2004 baseline research report just received
  Mine development plan not yet developed and may be delayed due to recent developments
  Resources limited
  Time period of project is Aug. 30, 2005 – Nov. 30, 2006
Technical Review Considerations

- Key – reviews based on the values and concerns of Bristol Bay Native communities
- Critical questions
  1. Are the studies review well designed to identify baseline conditions?
  2. Are obvious elements missing from the work being done or proposed?
  3. Are any issues inadequately addressed?
  4. Are elements and issues well suited to assessing cumulative impacts?
Technical Review Questions

- Domino effects – have the results of changes in one area been considered for effects elsewhere?
- Cumulative impacts – are studies designed to address overtime continuities and examine their affects throughout?
- Incorporation of TEK/TK – has local/traditional knowledge been accessed and incorporated effectively?
Technical Review - Example

Legend
- Communities
- Minesite
- Roads
- Rivers
- Tier One communities
- Tier Two communities
- Tier Three communities
- Tier Four communities
Capacity Building and Training: What Content?

- Roles – agencies and public members
- What NEPA is/isn’t (e.g., NEPA/EIS doesn’t provide a go/no go decision)
- How it works – in general
- What a cooperating agency is – roles and responsibilities for tribes
- Where and how to effectively participate
- Tribal consultation – how it fits into process (how different from general public involvement) (request translation – e.g. into Yupik)
- State’s involvement with and State’s comments on NDM’s environmental plan – what are they (in general) what do they mean?
- Saying the right thing at the right time; not right thing at wrong time
Capacity Building and Training: Tasks and Processes

- Needs assessment – discussions with key Bristol Bay contacts to understand where now;
- Develop recommendations on training design, priorities and client focus;
- Coordinate with BBNA and NAFWS to determine training plan and set date(s);
- Develop instructional materials
- Coordinate with BBNA and NAFWS (3 meetings presently planned)
- Conduct training(s) at Bristol Bay sites
Communications

- Identify contacts at BBNA and persons in organizations in communities to coordinate
- Direct contact between S. Sharp and contacts for introduction
- Development of website on Pebble Mine Technical Assistance
- Develop flow charts and timelines for permits
- Develop, if desired, message board for contacts to exchange information and views
Technical Assistance Products

- Communication plan
- Several presentations to NMWC
- Training materials on NEPA and other processes
- Technical review of baseline studies and research plans in the areas of social issues
- Recommendations for additional research to fill identified gaps
UAA/ISER TEAM

- Steve J. Langdon, Ph.D.
- UAA - Department of Anthropology/ISER
- Project director – technical review related to subsistence and cultural resources

Ph.D. in Anthropology – Stanford University, 1977
Began working in Bristol Bay in 1979 on herring sac roe issues
Has conducted research in most parts of Bristol Bay on such topics as limited entry, subsistence, land use, offshore oil drilling and CDQs
UAA/ISER TEAM

- Steve Colt, Ph.D.
- UAA - Environmental Studies Director
- Responsibilities - Technical review related to economic issues and impacts

Ph.D. in Economics – Massachusetts Institute of Technology, 1999

Research focuses on energy economics, rural utilities, tourism and recreation, and Alaska Native corporations
UAA/ISER TEAM

- Margaret (Meg) King, MA
- UAA – Resource Solutions Director/ENRI
- Responsibilities – Training in NEPA review processes and comment construction

MA in Business Administration - Denver University, 1989

Works with federal, state, local and tribal governments, private and public interests, general citizenry to build community capacity, address concerns, and make decisions on a variety of public issues
UAA/ISER TEAM

- Suzanne Sharp, MA
- UAA – ISER Research Associate
- Responsibilities – Communications with BBNA contacts, maintaining info flow

MA in Public Administration – UAA, 1998 (originally from Kotzebue)

Administrator of Alaskool educational website responsible for Inupiaq language content and has conducted research on rural schooling and boarding home options
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- James Kerr, BS
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Specializes in technology systems analysis, system administration, programming, and Web site administration for ISER staff and visiting scholars. He designs systems to link ISER’s diverse network of computers with internet.
UAA/ISER TEAM CONTACTS

- Steve J. Langdon – Project director
  afsjl@uaa.alaska.edu 907-786-6848

- Steve G. Colt – Technical Review/Economic – Socioeconomic
  afsgc@uaa.alaska.edu 907-786-1753

- Margaret (Meg) King – Training/Capacity Building
  anmjk@uaa.alaska.edu 907-257-2716

- Suzanne Sharp – Communications/Contact
  ansss@uaa.alaska.edu 907-786-5403

- Jim Kerr – Website/Internet
  ajjsk@uaa.alaska.edu 907-786-7734
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Presentation to:
Nushagak Mulchatna Watershed Council
December 15, 2005

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  907-786-5403

- Jim Kerr – Website/Internet  
  ajjsk@uaa.alaska.edu  
  907-786-7734
BBNA/UAA TECHNICAL ASSISTANCE PROJECT:
Baseline Studies Technical Review Memo #1 (Summary)

Dr. Steve J. Langdon – ISER/Anthropology
Dr. Steve Colt – ISER/Environmental Economics
Nushagak Mulchatna Watershed Council Board Meeting
Nondalton – April 24, 2006
Technical Review Background

- Langdon, Colt and others to provide review of NDM "baseline studies" for Pebble Mine permitting process

- Social research areas to be reviewed
  - Subsistence
  - Cultural Resources
  - Socioeconomics
  - Recreation
  - Land Use
Technical Review Framework

- Submitted to BBNA – January, 2006
- Background information on design of research, selection of contractor, and scope of work/research designs
- Identifies questions to be asked about baseline studies in review
- Internal adequacy of research:
  * Do they meet recognized research standards
  * Will they provide accurate picture of the present human and natural environment
- External adequacy
  * Do studies provide accurate information on critical concerns of Bristol Bay Natives and tribes
  * Do studies provide measures of variables so that cumulative impacts can be identified
- Determine if there are research areas not addressed by studies
- Determine if studies will be adequate to answer 180 questions about these topics
"Baseline Studies" Background

- Studies required to describe conditions at the time Pebble Mine permits are filed
- Studies began in mid to late 2004
- Stephen R. Braund and Associates: Subsistence (ADFG Subsistence Division assistance)
- Kevin Waring and Associates: Recreation, Land Use, Community Infrastructure, Power and Transportation
- McDowell and Associates: Socioeconomics
<table>
<thead>
<tr>
<th>Topic</th>
<th>Availability</th>
</tr>
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<tbody>
<tr>
<td>NDM request for proposals</td>
<td>Not available</td>
</tr>
<tr>
<td>NDM list of research proposers</td>
<td>Not available</td>
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<tr>
<td>Braund and Waring successful proposals</td>
<td>Not available</td>
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<tr>
<td>Scope of work and Research designs</td>
<td>Not available</td>
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<tr>
<td>Powerpoint presentations made to agencies and community leaders</td>
<td>Not available</td>
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<td>in November, 2005 and February, 2006</td>
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<tr>
<td>NDM responses to agency review comments</td>
<td>Not available</td>
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<tr>
<td>Research protocols used to ask questions</td>
<td>Partially available* ADFG Subsistence provided;</td>
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<tr>
<td>*SRBA did not provide questions used in subsistence mapping research</td>
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<td>nor list of interviewees</td>
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<tr>
<td>*McDowell and Associates did not provide door to door household</td>
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<td>socioeconomic survey instrument or telephone instrument, or</td>
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<td>workforce identification and interest instrument</td>
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<td>*Waring did provide research questions asked of lodges about</td>
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<td>economics of their operations</td>
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“Baseline Studies” Documents and Other Materials Examined for TR Memo #1

- 2004 Research Progress Reports
- 2005 Research Study Designs
- Reviews of 2004 Research Progress Reports – US Fish and Wildlife, EPA, National Park Service
- Powerpoint presentations made to BBNA/ISER staff at requested meetings:
  - Subsistence – SRBA, Feb. 17
  - Socioeconomics, Recreation, Land Use – Waring and McDowell, Mar. 2
  - Cultural Resources – SRBA, Mar. 9
- Research protocols used in ADFG Subsistence Study provided on request by Dr. Jim Fall
“Baseline Studies” Overview - Subsistence

- Primary Contractor – SRB&A
- “Snapshots” of conditions - 2004, 2005
- Two basic study designs
  * ADFG Community Subsistence Study – based on extensive household interview
  * Subsistence Resource Use Mapping Study – conducted by SRBA
“Baseline Studies” Overview - Subsistence

- ADFG Community Subsistence Study

- ADFG Study in 5 “Lakes” communities
  * Study conducted by ADFG Subsistence Division;
  * Funded by Lake Clark NPS and NDM (SRBA)
  * Household survey data collected in 2005
  * Key respondent interviews conducted on “issues and concerns”, “long term trends” and “climate change”
“Baseline Studies” Overview - Subsistence

- ADFG (type) Community Subsistence Study in other communities by SRBA – comparable

  * Study conducted by SRBA for NDM
  * Data collection in 2005 and continuing in 2006
  * Nushagak/Mulchatna communities ongoing
  * Dillingham in scope of work as separate study – not yet scheduled
  * Nushagak Bay and Bristol Bay Borough communities also in scope of work as separate study – may be done this summer
  * Additional study in Lime Village contemplated, not decided
“Baseline Studies” Overview - Subsistence

- Subsistence Resource Use Mapping Study – conducted by SRBA
- Comparable for all communities
- Separate in “Lakes” Communities
- Combined with Household Subsistence Study in Nushagak Mulchatna area villages
- Includes data collection on harvest locations of key species by contemporary significant producers
- Revised to include information on trails and travel routes – suggested by NM villages
- Revised to include detailed information on use and distribution 16 types of berries
- Some overlap with data being collected for Traditional Use Area Conservation Plan – Braund indicated that he would like to include that information in his baseline report if it is available
- TEK – minimal; questions asked of long-term users on: abundance, distribution, migration and quality
“Baseline Studies” Overview – Cultural Resources

- Conducted by SRBA
- Research done in 2004 and complete report in draft form included in 2004 progress report
- Archeological oriented to prehistoric site identification
- Literature review to establish model for field survey – done in mine and port area, not done in road corridor
- No prehistoric sites identified in mine impact area
- Two archeological sites identified at port
- Historic camp remains identified in several areas in proximity to mine development locations
Conducted by McDowell and Associates

Compilation of secondary on demography, economy, education, infrastructure from various sources – US census, AK Dept. of Labor, CFEC, etc

Baseline period: 1999-2004

Household interviews in “Lakes” communities

Telephone interviews in Nushagak/Mulchatna communities

Telephone interviews included questions about interest in employment and training at Pebble Mine

Waring is conducting Community Infrastructure portion of socioeconomics
“Baseline Studies” Overview – Recreation

- Conducted by Waring
- Compilation of published data from ADFG sports fishing and sport hunting by areas
- Acquisition of unpublished ADFG data on sports hunting harvest locations for moose and caribou
- Interviews with lodge owners, etc. on level of activities and business performance
- Expects to develop a “valuation” (monetary measure of total worth) for recreation
“Baseline Studies” Overview – Land Use

- Conducted by Waring
- Compilation of maps of land ownership in hands of various agencies, corporations
- Minimal attention to laws and regulations governing types of uses on various lands
- BLM Land Planning Process ongoing
- No attention to allotments
- No attention to land values
“Baseline Studies” Status

☐ SUBSISTENCE
1. ADFG “Lakes” Study due in draft by mid-April
2. SRBA household and mapping studies are in various stages of data collection and analysis; some of research has not yet started and has not been scheduled
Next product is Fall Progress Report
No anticipated date of completion of mapping and community subsistence studies as part of inclusive baseline report

☐ CULTURAL RESOURCES
1. Baseline study of mine development and port area completed
2. Additional research on road corridor has not yet been conducted; awaits road design information
“Baseline Studies” Status

- SOCIOECONOMICS
- RECREATION
- LAND USE

Completed reports in all these areas expected by summer 06
“Baseline Studies” Issues

- GENERAL
- 1. Peer Review – possible State conflict of interest on subsistence studies
- 2. NDM response to peer review – has not responded to request for BACI studies requested by agencies
- 3. Integration of various studies – environment studies with subsistence studies; socioeconomics with subsistence
- 4. Cumulative affects – consideration of other possible mining activities in vicinity of Pebble Mine
- 5. What are criteria for adequacy of studies?
- 6. Who will make those determinations?
“Baseline Studies” Issues

- SUBSISTENCE (key issues – more in report)
- 1. Timeframe – need 30 years on salmon, moose, caribou to identify productivity
- 2. Cultural values and significance under addressed – including cultural landscape
- 3. Traditional Ecological Knowledge – not conducted in detail or in Native languages
- 4. Domino impacts – may go beyond presently study areas
- 5. Missing data – traplines
- 6. Data structure and access – household survey available?
- 7. Valuation – commercial and recreational activities will have monetary values computed. Should subsistence? Difficult to value “way of life” beyond food substitution values.
Role of Traditional Knowledge in Environmental Assessment

Yukon Territory –

TEK given formal recognition in Environmental Assessment Process in 2005
Traditional Knowledge in Yukon Territory Environmental Assessment

Traditional Knowledge given equivalent weight to:

- Baseline Information
- Impact Prediction
- Mitigation
- Cumulative effects
"Baseline Studies" Issues

- **SOCIOECONOMICS**
- 1. Employment data problems – time of data collection, fisheries sector, bi-local populations overlooked
- 2. Non-local dependent populations on fisheries and tourism not contacted
- 3. Missing data from Nondalton (not in household socioeconomic data)
- 4. No incorporation of informal economy associated with subsistence foods and sharing
- 5. Community infrastructure information on property values, ownership and impacts on costs of living missing
- 6. Possible bias in workforce questions on interest and availability
“Baseline Studies” Issues

- **RECREATION**
  - Valuation – requires much greater attention and range of analytic methods presently not included

- **LAND USE**
  - 1. Regulatory framework for land uses needs greater elaboration
  - 2. Identifying actual land uses in terms of numbers of people in different areas
  - 3. Property values and projections needed
  - 4. Mapping of additional lands (allotments)
“Baseline Studies” Issues

- ADDITIONAL ISSUES

- 1. HEALTH – need for baseline study on human health; presently not included in baseline for NEPA/EIS

- 2. Data availability – will data collected for baseline studies be available for analysis by others and for NEPA/EIS studies?
Technical Review: Next Steps

- ADFG “Lakes” Communities Subsistence Report: available mid-April, review to follow
- Socioeconomics, Recreation, Land Use: available mid to late summer; review by mid-fall
- SRBA Subsistence Progress Report: November, 2006; review status to be determined
- Examine relevant 180 questions – determine what kinds of answers baseline studies provide
- Looking forward to NEPA/EIS research
## NMWC/BBNA: Possible Actions on Baseline Studies

- Request draft reports and materials that have not been provided; seek greater openness in sharing of study research methods, data and results.
- Inform NDM of issues and request that studies address them.
- Identify resources to conduct own supplementary studies (TEK, Health, Key Resource Timeline, other).
- When/if permits filed, indicate research gaps to lead agency and request that studies be conducted as part of NEPA/EIS process.
Questions and Discussion

- Are there additional issues and concerns that have not been identified?
- What issues must be addressed?
- What role should various Bristol Bay organizations be playing in regard to baseline studies and other research?
- What is the best way to insure that NMWC studies are integrated into NDM baseline?
BRISTOL BAY MINERAL DEVELOPMENT TECHNICAL ASSISTANCE PROJECT REPORT

Prepared by Dr. Steve J. Langdon, UAA/ISER
Presented to
Bristol Bay Native Association Board
September 27, 2006
PROJECT AREAS

- **Technical Review** of NDM baseline studies for Subsistence, Cultural Resources, Socioeconomics, Recreation and Land Use
- **Capacity building** associated with NEPA process to prepare for comments on Pebble Mine permits
- **Communications** and information acquisition related to mineral development
PEBBLE MINE – Project Area

Legend

- Routes of Interest
- Gewbody
- Existing Roads
- Port Sites

Project Area

Local Vicinity
Previous Activities - Review

- Technical Review Memo #1 – submitted to BBNA in March, 2006 – presented an NMWC in April, 2006
- Based on study plans and progress reports for baseline studies provided by NDM
- Memo identified strengths, weaknesses and especially uncertainties in these documents
- Cultural Resources report was the only one with substantive information on fieldwork provided
- No actual baseline studies have been completed or made available for review
- Minimal information on work in progress in areas other than Cultural Resources – oral reports at meetings only
Technical Review Memo #1
Update

- Technical Review Memo #1 – submitted to BBNA in March, 2006
- NDM offered the following clarifications to Technical Review Memo #1 (8/4/06)
  - Newhalen rather than Nondalton had elected not to participate in the socioeconomic household survey
- ADFG Subsistence Division would conduct the subsistence survey in the seven Nushagak/Mulchatna villages, not Braund and Associates
- Similar detailed mapping of subsistence use areas, species patterns and traditional ecological knowledge would be done by Braund in first five communities as is being done in seven Nushagak/Mulchatna communities
- Allotment mapping would be included in the Land Use study
Previous Activities - Review

- Capacity building for NEPA process
- Margaret King led this component
- Coordinated training with Native American Fish and Wildlife Society
- Coordinated training with UAF Bristol Bay Campus
- Three separate training classes or activities were conducted
Previous Activities - Review

- Capacity building for NEPA process
  Training activities:
  March 10-12, 2006 was the NEPA training in King Salmon with Bristol Bay campus
  May 4-5, 2006 was the second NEPA training in Pt. Alsworth
  May 6-7, 2006 Empowering Native Voices, in conjunction with Native American Fish & Wildlife Society
Previous Activities - Review

- Communication/information acquisition
  Suzanne Sharp activities:
  Communications:
  1) Surveys to determine types of information desired and means of distribution
  2) Development of website design and shell now being implemented by BBNA
Previous Activities - Review

- Communication/information acquisition

Suzanne Sharp activities:
Information Acquisition:
1) Identification of relevant articles on impacts of mineral development, acquire rights to use, develop data base format for dissemination on web
2) Permit information - preparation of data base on permits, agencies, contacts
MEETING WITH NDM IN AUGUST 2006

- UAA/ISER and BBNA staff met with NDM and research contractors on Aug. 4, 2006
- Purpose to discuss research developments and provide 2006 study plans to BBNA/ISER for comment
- Clarify understandings of subsistence and socioeconomic research activities
MEETING WITH NDM IN AUGUST 2006 (continued)

- HIGHLIGHTS OF MEETING

- Braund indicated that Ekwok had decided not to participate in the extensive mapping research being done elsewhere.

- Comment meetings had been held with communities concerning draft ADFG report which had been incorporated.

- Braund stated that Nondalton had “signed off” on subsistence mapping portion of research.

- Braund stated that Lime Village had been added to the communities on which subsistence research would be conducted immediately.

- No timeframe for the conduct of ADFG or Braund and Associates subsistence studies of Nushgak Bay (Dillingham et al) or Bristol Bay Borough communities.
PEBBLE MINE – Subsistence Baseline Study Communities, 2006 Study Plan
MEETING WITH NDM IN AUGUST 2006 (continued)

- HIGHLIGHTS OF MEETING (continued)
  - Socioeconomics report was nearing completion and should be submitted to NDM in September
  - Recreation report was being delayed
  - Land Use report was being delayed – stated that discussion of classifications and regulations would be included in baseline
  - Cultural Resources research activities had been conducted and the report would be submitted to the State Historic Preservation Office shortly
PEBBLE MINE – NDM Baseline Study
Plan for 2006

- Dr. Steve Langdon Commentary on Socioeconomics and Cultural Resources

Major Concern #1 - No timetable established for subsistence research in Nushagak Bay and Bristol Bay Borough communities
Major Concern #2 - Baseline should not be one year but rather include a time series to identify and examine trends
Major Concern #3 - No timetable for availability of reports for review and comment has been provided
Major Concern #4 - No discussion on how the various studies will be integrated into an overall baseline subsistence study
Major Concern #5 - Data may not be as robust as originally led to believe - example, berries data
Major Concern #6 - Will data be available for impacts analysis during NEPA study processes to follow?
PEBBLE MINE – NDM Baseline Study
Plan for 2006

• Dr. Steve Colt Commentary on Socioeconomics and Recreation
  Major Concern #1 - No specific listing of data sets to be used and presented; minimal information provided
  Major Concern #2 – Baseline should not be one year but rather include a time series to identify and examine trends
  Major Concern #3 – No timetable for availability of reports for review and comment has been provided
  Major Concern #4 – No evidence of a peer review process for baseline studies
  Major Concern #5 – Recreational baseline uses narrow measures to identify value
PEBBLE MINE – Cultural Resources Baseline Study Area, 2006 Study Plan

DRAFT

Pebble Project
NORTHERN DYNASTY MINES INC.

Cultural Resources Survey in the Vicinity of the Mine Components
Figure 14-1

- 2004-2005 Waypoint
- 2005 Proposed Survey Area
- Mine Pit

Scale 1:20,000
Alaska State Plane Zone 2 (units feet)
1983 North American Datum

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Remaining Project Activities

- Technical Reviews to be completed
  Langdon, ADFG Subsistence Technical Paper #302 – Lakes Region Communities
  Colt, Trout Unlimited - Economics of Wild Salmon Watersheds: Bristol Bay, Alaska

- 2006 Progress Reports due in October – reviewed if they are made available before November
Remaining Project Activities

- Communication of Information
  Sharp - Complete permit information and data base
  Sharp – Provide summaries of articles and reports that could be available through website; place in data base format
Remaining Project Activities

- Capacity building - Training
  King – Discussion document for BBNA staff on possible additional steps for capacity building and training for Bristol Bay tribal members related to mineral development process
  Training activities under contract complete
Additional Issues to Consider

- Health Issues
- Recent article on assessing health impacts in the context of environmental impact assessment

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Integrating Human Health into Environmental Impact Assessment: Case Studies of Canada’s Northern Mining Resource Sector

by BRAM F. NOBLE and JACKIE E. BRONSON