



Draft Report
**Stakeholder Assessment and
Dialogue Feasibility Study
for the
Proposed Pebble Project
Southwest Alaska**

**Submitted by:
The Keystone Center
September 2, 2008**

1600 Broadway, Suite 1920
Denver, Colorado 80202

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Dear Pebble Stakeholders and Concerned Citizens

Attached is a draft report titled Stakeholder Assessment and Dialogue Feasibility Study for the Proposed Pebble Project. This report is the independent work of The Keystone Center in Colorado (www.keystone.org) and is the result of interviews and conversations with approximately 90 individuals in southwest Alaska between February and May 2008.

The draft report is an attempt to identify the principal issues and concerns that people have raised with regard to the proposed Pebble mine and to assess the desirability and feasibility of a dialogue process to discuss and perhaps address those issues.

We greatly appreciate your feedback on the contents of the report and its recommendations. We would also like to discuss our findings and recommendations with you at a local gathering that you might help us arrange. We can make ourselves available during the weeks of September 22 and 29 and are happy to travel to your location to meet with people there.

Please feel free to provide written or verbal feedback within the next two weeks and to contact me to arrange a gathering to discuss the report and its recommendations in more detail. And please forward the report to others for their review.

I look forward to hearing from you and thank you for your assistance.

Sincerely,

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Executive Summary

Introduction

Pebble Limited Partnership (PLP) is working in southwest Alaska to “develop a high volume, long-life copper mine with associated gold, molybdenum and, potentially, other precious metals.” According to PLP, the project has the potential to “make a significant contribution to broad-based socio-economic development in Southwest Alaska.” PLP has also stated a commitment to developing the project in a “participative manner that enables all Alaskans and other relevant stakeholders to contribute to the debates around the project.” PLP is interested in establishing a long-term, structured stakeholder dialogue process that includes:

- Independent facilitation under the guidance of a multi-stakeholder steering group in which no one party can exercise veto control
- Participation that is open to all interested and affected stakeholders
- Participation from a broad range of perspectives regardless of whether they support, oppose, or are neutral with respect to the potential development of the Pebble Project
- Joint Fact Finding/jointly supervised research according to agendas agreed by the dialogue participants as well as impartial experts

These interests led PLP in search of an organization that could credibly guide such a process and selected The Keystone Center to conduct an independent stakeholder assessment and dialogue feasibility study and, if feasible and desirable, design an independent stakeholder dialogue process to address issues raised in the assessment.

The Keystone Center

The Keystone Center is a non-profit organization founded in 1975 to ensure that present and future generations approach environmental and scientific dilemmas and disagreements creatively and proactively. By way of its public policy and education programs, The Keystone Center improves decisions about long-term issues by helping scientists, planners, and decision-makers effectively understand and address technically complex and politically uncertain situations.

Purpose and Method of the Assessment

The purpose of the assessment is to identify a broad range of issues related to the proposed Pebble Project; how people view the issues; what environmental, social and economic questions are of interest to people; and whether there may be an opportunity for stakeholders to dialogue with PLP, with scientists, and with each other to explore options to address those issues. The Keystone Center’s long-term objective is to help people affected by and concerned with the proposed mine make an informed decision about, 1) whether they want a mine and 2) under what conditions they might consider a mine at the proposed location.

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The Keystone Center team conducted interviews with stakeholders across affiliations, regions, agencies, communities, tribes and interests. Interviewees were initially identified from PLPs stakeholder list and expanded as interviewees suggested additional people. Keystone spoke with approximately 90 people, either individually or in small groups.

Stakeholders and their Issues

Stakeholders

The Keystone Center assessment team discovered five broad stakeholder categories based on responses to interview questions. The categories can be drawn along a continuum from adamantly opposed to the mine to strongly supportive:

- Stakeholders opposed to the proposed mine who will not participate in a dialogue process under any conditions.
- Stakeholders opposed to the proposed mine but feel it will likely be permitted and want to influence its design.
- Stakeholders who do not have enough credible information and welcome a dialogue to help them evaluate the risks and benefits of a proposed mine.
- Stakeholders supportive of the proposed mine who believe a dialogue will improve the mine's design and associated amenities.
- Stakeholders supportive of the proposed mine who do not believe a dialogue is necessary.

Issues/Concerns

Through interviews and additional research, the Keystone assessment team identified the following list of issues/concerns. This list is not meant to be conclusive. It represents the Keystone team's best effort to identify the issues of most concern to those interviewed.

Environmental Issues – stakeholders identified four categories of environmental concern:

- Downstream impacts – water quality and specifically impacts on the salmon fishery, the source for commercial, sport, and subsistence fishing
- Mine footprint impacts – the scale of the mining footprint increases the environmental risks, particularly the scale of the tailings pond and associated dam
- Supporting infrastructure and new development, including:
 - Proposed road from the mine to Cook Inlet
 - Seaport development and activity
 - Increased activity at other ports
 - Energy source to support the mine
 - New/increased development throughout the region.
- Air quality and noise impacts from mine operations.

Economic and Social Issues – stakeholders identified economic and social issues both in opposition to (negative impacts) and support of (positive impacts) the proposed mine:

Opposition/Negative Impacts:

- Damage to the Bristol Bay salmon fishing and associated livelihoods

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- Decline in tourism and recreation from the perception that the region is no longer a pristine wilderness
- Loss of subsistence living from impacts on fish, wildlife, and habitat
- Likelihood that a boom and bust economy will emerge
- Loss of Native cultural from an influx of “outsiders” with imported perspectives
- Likelihood that outsiders will receive the higher paying jobs, with lower paying jobs relegated to locals
- Higher costs for goods and services and increased dependency on a cash economy
- Increased public health problems and exposure to drugs and alcohol
- Lack of economic benefit to the US or Alaska, as profits go to international companies

Support/Positive Impacts:

- Better jobs requiring higher skill levels, funds for schools, a good economy, better health care, and opportunities to take vacations
- Benefits to locals from supporting services and infrastructure
- Incentives for individuals to remain in the region through economic stability and opportunities not currently present
- Cultural retention and resurgence as more Natives remain in or return to their communities

Recommendations – Keystone Dialogue Process

It is The Keystone Center’s recommendation, based on this assessment, that a stakeholder dialogue to discuss and perhaps consider sustainable mining options is feasible, albeit challenging. The Keystone assessment team recommends that a three-stage Dialogue Process be pursued, including, 1) Independent Science Panels, 2) a Joint Fact-Finding process, and 3) a Project Planning Collaborative, and that a Science Advisory Committee be convened to help guide the dialogue process.

1. Independent Science Panels (ISP) – The Keystone Center recommends five topic-specific Independent Science Panel events made up of a select group of independent experts who will review and assess the credibility of PLP baseline data through public meetings that will be broadcast to stakeholders via interactive video technology at hub locations in Dillingham, King Salmon, Iliamna-Newhalen, Anchorage and Kenai. Each panel will have four to six Alaska-based and international experts.
 - a. *Proposed Panel Topics:*
 - i. Geology and Hydrogeology
 - ii. Water Quality
 - iii. Fish, Wildlife and Vegetation
 - iv. Social and Economic Dynamics
 - v. Sustainable Mining Practices

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- b. *Science Advisory Committee* – The Keystone Center will convene a Science Advisory Committee to help guide the selection of a credible list of panelists and will provide advice on design of the ISP events. Members of this committee will be affiliated with academic institutions, government agencies, and science-based non-governmental organizations in Alaska and the U.S.
2. Joint Fact Finding Working Groups (JFF) – The Keystone assessment team anticipates that valid scientific questions will emerge from the ISP events that will require the gathering of additional baseline and risk assessment data. The assessment team will work with the Science Advisory Committee to convene one or more Joint Fact Finding Working Groups made up of stakeholders and scientists to address such questions. The structure of JFF working groups is not fixed but may include:
 - a. PLP and non-PLP scientists working together to gather new data
 - b. An Independent monitoring and review panel – perhaps the Science Advisory Committee – helping to design and oversee the collection of data by PLP scientists
 - c. The co-identification of independent and trusted scientists that all parties find credible
3. Project Planning Collaborative (PPC) – The Keystone assessment team recommends the development of a representative group of stakeholders to engage with PLP in the development of an environmentally and socially preferred mining scenario or scenarios. This stage is dependent on stakeholders’ willingness, after the first two stages, to explore mining scenarios without committing to supporting any of them. The proposed design of the Collaborative includes the following:
 - a. *Project Planning Collaborative Group* – Includes 25-30 individuals representing various issues and perspectives that need to be addressed in planning process. These broadly include: environmental, economic, and social/cultural issues. Representation on the group should cut across three somewhat overlapping dimensions including potential losses and gains from the proposed mine’s development. Potential losses include commercial, sport and subsistence fishing and hunting, habitat loss and degradation, public health, and loss and displacement of Alaska Native culture. Potential gains include economic development and employment, new social and cultural amenities, community revival, and infrastructure development. Representation must also include the three geographic sub regions – Bristol Bay, Lake and Peninsula, and the Kenai Peninsula.

At each stage of the proposed Keystone Dialogue, there will be clear opportunities for stakeholders, and PLP, to walk away from the process and pursue other alternatives. At each stage of the Dialogue there will be an explicit go/no go decision to proceed with the next stage.

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Schedule

As part of the Keystone Dialogue process, we will invite interviewed stakeholders to fully review and provide input on the stakeholder assessment and Keystone's corresponding recommendations. The Keystone Center is particularly interested in accurately capturing the issues of concern. The recommendations are solely Keystone's – though they are based on conversations with stakeholders, as well as Keystone's experience in engaging communities, governments, and industry in complex public policy questions.

Modifications will be made to this schedule following input from stakeholders:

Stage 1: Independent Science Panel and Event – In September 2008, we will convene the Science Advisory Committee; meet with the Committee to establish a draft list of ISP members for each panel. The first ISP event will occur in October/November and the second event in November/December. The three remaining ISP events will occur in 2009.

Stage 2: Joint Fact Finding – Through conversations with the Science Advisory Committee and stakeholders we will establish a confirmed process for this stage in September of 2008. Following the first ISP event, we will gauge interest in a working group, October/November 2008.

Stage 3: Project Planning Collaborative – Begin in September 2008 to test the idea of a collaborative, establish criteria for the composition of members, and identify and contact potential members. Develop a draft process and operating protocols for the Collaborative, in November 2008. The first meeting will occur in early 2009.

Summary

Based on stakeholder interviews, and on documents suggested by stakeholders, the assessment team recommends that a three-stage Keystone Dialogue process be initiated, with the specific goal of helping people make an informed decision about whether they want a mine at the proposed location and under what conditions they might consider a mine at the proposed location. The Dialogue, as proposed, is designed to enable stakeholders to fully assess the risks, benefits, and trade-offs associated with the proposed mine and to choose to move to the next stage of the process or to confidently, and without consequences, leave the process and pursue other alternatives, including actively opposing the mine. While the Dialogue process will likely change as it evolves, the Keystone Center is ready to move forward with the three-stage process.

Stakeholder Assessment and Dialogue Feasibility Study

Introduction

In August 2007, wholly owned subsidiaries of Anglo American and Northern Dynasty mining companies entered into a joint venture to develop the Pebble Project, located in Southwest Alaska (see map in Appendix A). The joint venture led to the formation of the Pebble Limited Partnership (PLP), whose goal is to “develop a high volume, long-life copper mine with associated gold, molybdenum and, potentially, other precious metals.” According to PLP, the project also has the potential to “make a significant contribution to broad-based socio-economic development in Southwest Alaska, an area generally short of adequate economic opportunities.” PLP also acknowledges that there are “major technical and infrastructure challenges to overcome,” as well as “environmental issues that will require careful management, in particular to ensure there is no damage to the world class salmon fisheries in the Bristol Bay area.” PLP further states its commitment “to operating to high environmental standards and to supporting local socio-economic development, with no net harm to salmon fisheries being a key management objective.”

PLP has also stated a commitment to developing the project in a “participative manner that enables all Alaskans and other relevant stakeholders to contribute to the debates around the project.” To this end, PLP has developed and implemented what it describes as “a core engagement and outreach program” that has, to date, included hundreds of meetings and presentations around Alaska.

In addition, PLP has stated its belief that “a constructive process of stakeholder dialogue is a more productive long-term means to address the many valid concerns expressed by interested and affected persons and regulators.” In particular, PLP has expressed the desire to work in a “collaborative and consultative manner in line with the principles of transparency, accountability and sustainable economic development.” PLP has further stated its interest in establishing a long-term, structured stakeholder dialogue process that will include the following:

- Independent facilitation under the guidance of a multi-stakeholder steering group in which no one party can exercise veto control
- Participation that is open to all interested and affected stakeholders
- Participation from a broad range of perspectives regardless of whether they support, oppose, or are neutral with respect to the potential development of the Pebble Project
- Joint Fact Finding/jointly supervised research according to agendas agreed by the dialogue participants as well as impartial experts

These interests led PLP in search of an organization with the expertise and reputation to credibly guide such a challenging process.

The Keystone Center

The Keystone Center is a non-profit organization founded in 1975 to ensure that present and future generations approach environmental and scientific dilemmas and disagreements creatively and proactively. By way of its public policy and education programs, The Keystone Center improves decisions about long-term issues by helping scientists, planners, and decision-makers effectively understand and address technically complex and politically uncertain situations.

In November 2007, The Keystone Center was approached on behalf of the Pebble Partnership by the UK- and US-based consulting firm Sustainable Finance to determine whether Keystone was interested in and capable of completing an independent stakeholder assessment and dialogue feasibility study consistent with the above criteria. The Keystone Center was intrigued by PLP's stated commitments to a credible stakeholder dialogue and, further, to sustainable economic development. In addition, The Keystone Center is cognizant of the work of non-governmental environmental and human rights organizations (NGOs) and institutions at both the national and international level that are developing guidelines and principles for improving and/or achieving sustainable mining practices. These organizations and institutions recognize that mining is occurring and will occur in environmentally and culturally sensitive regions of the world.

The prospect of mining in sensitive regions suggests the need for consensus among industry, government, NGOs, and citizens regarding sustainable practices and whether they are achievable in a given environmental, socioeconomic, and cultural context. This, in turn, pointed to an important role for The Keystone Center in developing and convening a constructive and culturally sensitive dialogue process to explore sustainable principles and practices and their feasibility in a particular context. Based on these considerations, The Keystone Center agreed to conduct an independent stakeholder assessment and dialogue feasibility study for PLP. The purpose of the assessment is described below.

Purpose and Method of the Assessment

The purpose of the assessment is to identify a broad range of issues related to the proposed Pebble Project; how people view the issues; what environmental, social and economic questions are of interest to people; and whether there may be an opportunity for stakeholders to dialogue with PLP, with scientists, and with each other to explore options to address those issues and concerns. In an effort to carry out the assessment, Keystone Center specialists contacted an initial list of approximately 200 "stakeholders" identified by PLP's public involvement staff and invited them to share their concerns, fears, and aspirations regarding the proposed mine. The Keystone assessment team of Todd Bryan, Ph.D. and Jody Erikson developed an introductory letter describing the assessment process and providing a means of contacting team members.

To begin, the Keystone assessment team categorized the list of stakeholders by affiliation, known interests, and region or community of concern, and targeted

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representatives of each category for interviews. This process was aided by PLP's Community Associates, who oriented the assessment team to the region's Alaska Native communities and interests. Broad stakeholder categories included state and federal regulatory officials, environmental interests, local and tribal government representatives, Alaska Native corporations, commercial and sport fishing interests, economic development interests, and public health interests.

Further, stakeholders representing these categories were identified and targeted in three (roughly defined) geographic areas that make up the proposed mine's zone of immediate influence – Bristol Bay, the Lake and Peninsula sub-region, and the Kenai Peninsula – as well as the Anchorage metropolitan area. In addition, the assessment team attempted to identify and contact stakeholders outside of the region, including those from other parts of Alaska and from the lower forty eight.

The goal of the assessment was not to poll the level of support or opposition to the proposed mine or to convene focus groups to assess the feasibility of specific mining options. The goal of the assessment was to identify the issues of concern to people regarding the proposed mine and to describe the comprehensive “situation” people are facing as they contemplate the proposed mine. A secondary goal of the assessment was to determine stakeholders' interests in a dialogue process to address the issues raised.

In carrying out the assessment, the Keystone team heard from approximately 90 individuals representing various interests and perspectives on the proposed mine. The assessment team conducted small-group discussions with community members and public officials in Dillingham, King Salmon, Egegik, Levelock, Kenai-Soldatna, Homer-Anchor Point, and Anchorage; attended Pebble's Regional and Community Leadership forums where they facilitated issue-related discussions among attendees; attended the Western Alaska Interdisciplinary Science Conference and Forum in early April; and attended a forum on the Process and Requirements for Large Mine Permit Applications in Alaska, which was co-sponsored by State of Alaska Large Mine Permitting Team, the Army Corps of Engineers, and Environmental Protection Agency.

The team began the assessment process by contacting individuals on PLP's public mailing list and expanded the list by asking interviewees to identify additional individuals and organizations that the team should contact. This strategy is standard procedure in conducting situation and conflict assessments within the environmental and public policy mediation field, and begins with the assistance of the “sponsoring” agency or client and expands outward to broaden the list until there are few new names being suggested. In the current assessment, team members found that PLP's public mailing list provided a fairly comprehensive list of the various stakeholders concerned with the proposed mine, particularly in Alaska.

The Keystone Center team did not make specific attempts to interview people outside of the “region of immediate influence” in southwest Alaska, which we defined as the Bristol Bay watershed, the Lake and Peninsula sub-region, the Kenai Peninsula, and Anchorage. This choice was made for two reasons. First, the assessment was not designed to gather

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broad public opinion about the proposed mine. Instead, it was designed to capture the principal issues of concern to people along with their perspectives on those issues. Stakeholder assessments can usually be conducted with a minimum number of participants that are closest to the issues, provided that the various perspectives on those issues are well represented. Second, the assessment team recognized the complexity of issues and stakeholder perspectives within the region of immediate influence and wanted to spend the time necessary to fully understand that complexity. Thus we spent most of our time in the region of immediate influence.

While PLP Community Associates helped orient the assessment team to the Alaska Native communities of the region, the Keystone team did not rely on Community Associates to help us make contact with or gain access to any of the stakeholders. We did this for two reasons: First, we wished to avoid the possibility, and the perception, that PLP would direct us towards individuals who were favorably disposed to the proposed mine. Second, we did not want to create the impression among stakeholders that we were there *on behalf of* PLP or any particular interest in the proposed mine. While the Keystone Center is under contract with PLP to conduct an independent stakeholder assessment and dialogue feasibility study, its ability to carry out the assessment is highly dependent on its ability to separate its work from the work of PLP's public involvement and outreach staff.

Nevertheless, questions about, and challenges to, Keystone's neutrality and objectivity were not uncommon. In fact, the assessment team discovered a contingent of stakeholders who are so opposed to the proposed mine, and distrustful of anyone "working for Pebble," that they would not talk to assessment team members. We found this with at least two representatives of advocacy organizations and with three of the Alaska Native communities we hoped to visit (Nondalton, Ekwok, and New Stuyahok). For the most part, however, the individuals we interviewed understand that The Keystone Center's long-term objective is not to help Pebble achieve its goal but to help people affected by and concerned with the proposed mine make an informed decision about, 1) whether they want a mine and 2) under what conditions they might consider a mine at the proposed location.

Stakeholders and their Issues

The Keystone Center assessment team discovered five broad stakeholder categories based on responses to interview questions. The categories can be drawn along a continuum from "adamantly opposed" to a mine at the proposed location to "strongly supportive" of a mine. Polar categories at each end of the continuum can be characterized by stakeholders who are so opposed to the proposed mine that they will not participate in a dialogue process under any circumstances, and stakeholders who are so supportive of the proposed mine that they do not believe a dialogue is necessary. Categories in the middle include, 1) stakeholders who are opposed to the mine but feel that it will likely be permitted under current regulations and want to influence its design; 2) stakeholders who do not have enough credible information and welcome a dialogue to help them evaluate

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the risks and benefits of a mine, and 3) stakeholders who are supportive of the mine and believe that a dialogue will improve its design.

Of the subgroup requesting more information (#2), many in the group appear to be seeking credible scientific information pertaining to existing environmental, social, and economic conditions. These are stakeholders who are keenly aware of the media campaigns being waged by both Pebble and opposition groups and do not know whether either sides' information is credible. Others in this subgroup would like to see a mining proposal so that they can begin to evaluate the environmental, economic, and social impacts associated with the proposal. While all of those in this subgroup are seeking credible information before taking a position, some, it appears, are focused primarily on baseline data used in the planning process while others are focused on an actual plan to which they can respond.

The principal issues of concern identified by stakeholders cut across three broad categories reflecting concerns for the environment, for economic development, and for social stability. These issues are summarized below from multiple perspectives. To the extent possible we have tried to present the issues as they were conveyed to us by stakeholders. In some instances, the information given to us by some stakeholders may be contested by other stakeholders. While we attempted to verify the sources of most of the information given to us, we did not attempt to verify the accuracy of the information.

Environmental Issues

Stakeholder concerns about environmental issues can generally be divided into four categories: 1) potential downstream impacts from the proposed mine, 2) the project's footprint, 3) potential impacts from supporting infrastructure and new development, and 4) potential air quality and noise impacts from the operation of the mine. These are summarized separately.

Downstream Impacts

The proposed mine sits at the headwaters of the Kuktuli River and Upper Talarik Creek and, as such, drains into two watersheds of significant environmental value. The Kuktuli drains into the Mulchatna River, which drains into the Nushagak River and into Bristol Bay near Dillingham. The Upper Talarik drains into Lake Iliamna, which feeds the Kvichak River and drains into Bristol Bay near Naknek. Both drainages are significant from an environmental standpoint in that both support productive salmon fisheries and both provide additional environmental benefits. Lake Iliamna, for example, supports one of only two populations of freshwater seals known in the world.

By far the most significant issue raised during the stakeholder assessment process is the potential impact of the proposed mine on the Bristol Bay salmon fishery, which has an overall economic value of \$324 million according to some estimates provided by stakeholders. It is widely known that the Bristol Bay watershed supports the world's largest sockeye salmon run and commercial sockeye salmon fishery. It also supports

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large populations of the five salmon species that occupy the region. The Kvichak River, we were told, is home to perhaps the single largest salmon run in the world while the Nushagak River hosts the largest king salmon run in Alaska. The Alaska salmon fishery, according to the Marine Stewardship Council, is one of only 31 certified sustainable fisheries currently existing in the world (an additional 74 are undergoing assessment).

Stakeholders we spoke with were clear that potential downstream impacts stemming from mining operations, such as seepage and discharge from the proposed tailings ponds, provide the single greatest threat to the fishery, to peoples' livelihoods, and to their way of life. This issue cuts across the entire spectrum of environmental, socio-cultural, and economic issues potentially affecting the region. Significant concern is expressed over mine waste and the accumulation of toxic chemicals and toxic metals that can occur when sulfides in the ore are exposed to air and water. In addition, stakeholders expressed concern over the release of potentially toxic chemicals used to separate targeted metals and minerals from large quantities of ore. Cyanide, in particular, was mentioned by stakeholders as a potential threat to public health and the environment if it is used in the mining process. Finally, stakeholders expressed concern over increased erosion and sedimentation from mining operations as potential impediments to the reproduction cycle of anadromous fish in streams below the proposed mine.

In addition, many of the fishery concerns are related to the fear of catastrophic failure of the dams and embankments containing mine waste. Concern for catastrophic failure of dams and embankments is associated primarily with the risk of a significant earthquake due to the proposed mine's proximity to the active circum-Pacific seismic belt, which runs along the edge of the Aleutian Islands and the Alaska Peninsula. Concerns over water quality impacts from routine mining operations are associated primarily with saturated conditions within the existing substrate, the permeability of the region's surface and subsurface geology, and the quantity of water passing through the drainage system.

These factors, it is argued, will create significant challenges to fully contain water within the tailings pond and/or for treating tailings water in perpetuity as it leaves the mine site. Hydrologic conditions, in part, are thought to influence the size of the tailings pond and will determine, to a large extent, whether PLP can fully contain contaminants in the tailings pond or may need to treat them in perpetuity. Either way, potential downstream impacts from a catastrophic event or from routine operations and maintenance are of significant concern to stakeholders.

Mining Footprint

Significant concerns were expressed over the potential size and scale of the proposed mine as well as the size and scale of specific mining components, particularly the size of the tailings pond and the height of the dam and embankments. Issues of size and scale translate into perceptions of increased environmental risks associated with the mine's magnitude, the amount of water required to operate the mine, the amount of wilderness displaced by the mine, challenges presented in reclaiming the mine site, and the mine's visual intrusion into the currently pristine landscape.

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Concerns were also raised primarily by Alaska Native people living within a relatively short distance of the proposed mine site that the mine will result in the loss of subsistence hunting, fishing and gathering opportunities on lands that it displaced. Loss of habitat for hunting, fishing and gathering was thought to have a negative impact on Native peoples' subsistence living and on their ability to find suitable replacement sites. In addition, several people expressed concern that the mine may displace and disturb calving grounds for wildlife and spawning habitat for fish. Several people also expressed a concern that the mining operation, and even ongoing exploration and data gathering activities, have disrupted migration patterns for wildlife and bird species that formerly traversed the area. It is also noteworthy that concerns regarding changing animal migration patterns were expressed by people living within relatively close proximity to the proposed mine site – Nondalton, Iliamna, and Newhalen – as well as people living further away – King Salmon, Levelock, and Dillingham.

Supporting Infrastructure and New Development

Potential impacts from supporting infrastructure and new development are a significant concern for stakeholders participating in the assessment. Specific concerns include potential impacts associated with, 1) the road connecting the proposed mine to the Cook Inlet seaport at Williamsport; 2) seaport development and activity; 3) corresponding activity at other ports; 4) power generation and transmission required to support the mine; and 5) new development that will occur throughout the region as the mine is developed. Each of these issues is summarized below.

Stakeholders expressed concern that the proposed road linking the proposed mining site with seaport transportation in Cook Inlet poses a potentially significant threat to the environment. The road is expected to traverse hundreds of acres of freshwater wetlands and sensitive habitat along the eastern shoreline of Lake Iliamna. In addition, the road is expected to cross all of the tributaries feeding the lake from the east and north, posing potential risks to the lake from erosion and spills. Stakeholders also expressed concerns that the proposed road may significantly impact the Pedro Bay community, potentially creating motorized access to the remote community, thus increasing traffic, noise, and dust as well as new residential and commercial growth and supporting infrastructure.

Finally, concerns were expressed that the road will link the communities of Pedro Bay, Iliamna, Newhalen, and Nondalton with each other and with Cook Inlet, providing both risks and opportunities. Environmental risks most commonly expressed by stakeholders include impacts from new mining development, new residential and commercial development, and easier overall access to the region via a Cook Inlet seaport. However, not all stakeholders viewed these impacts as constraints and some we spoke with welcomed increased access and new development, provided they could be accomplished in ways that protected the surrounding environment.

Proposed seaport development in Cook Inlet is also seen as a potential threat to the environment. Port development is expected to occur in the area of Williamsport, which is

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currently a shallow-water port that may require dredging and infrastructure development to serve the needs of the proposed mine. Stakeholders expressed concern that seaport development may present an environmental risk to wetlands habitat and associated species as well as potential critical habitat for the Cook Inlet beluga whale, which is currently under consideration as a federally threatened species pursuant to the Endangered Species Act. In addition to impacts associated with the development of the seaport, stakeholders also expressed concern that increased mining-related activity associated with the Williamsport seaport could trigger corresponding seaport expansion on the Kenai Peninsula, particularly port facilities at Homer, Kenai, and in Anchorage.

Several stakeholders were cognizant of the fact that the mine's development is dependent, in part, on PLP's ability to develop a viable energy source within reasonable proximity to the proposed mine site. Stakeholders who were aware of this issue also recognized that the development of a separate energy source presented significant challenges from an environmental perspective. Principal among these challenges from an environmental perspective is the facility location, the energy source, the means of energy transport, and associated infrastructure and development. In addition, stakeholders expressed concern over the effect of development on energy prices, speculating that the mine may drive up prices by increasing demand, even with the advent of a new source.

The prospect of a new energy source was viewed as an opportunity for economic development by stakeholders located in areas where potential energy sources are known to exist. This is particularly true of the Kenai/Soldotna area and the potential sources found in that region. Most stakeholders interested in energy development also expressed an interest in minimizing environmental risks associated with such development.

Finally, stakeholders expressed significant concern over potential environmental impacts associated with new development that is expected to occur throughout the region as the mine is developed. Concern was expressed in three general areas – housing development, transportation infrastructure, and seaport expansion.

Concern over housing development was expressed by stakeholders in communities within relatively close proximity to the proposed mine – Nondalton, Iliamna, and Newhalen – and in communities on the Kenai Peninsula – Homer, Anchor Point, and Kenai/Soldotna. Stakeholders from each of these communities speculated that mine workers will choose to reside in their communities and will put pressure on the communities to provide housing, infrastructure, and other services. Since these are relatively small communities to begin with, there is a concern among community leaders that an influx of new residents will burden the existing infrastructure and create demands for new housing. All expressed concerns with the ability to manage the scale of growth they were anticipating. Many, however, also expressed an interest in being able to accommodate new growth provided it was stable and was not overwhelming.

Residents living within rural communities in the Bristol Bay and Lake and Peninsula region are keenly aware of the limitations on regional ground transportation posed by the vast tundra and surrounding mountains. Transportation between communities is

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significantly limited during summer months except by foot, boat, and airplane. Transportation between communities is only slightly easier in winter months when the tundra is frozen and is traversable by snow machine. Gaining access to natural resources for mineral development, therefore, is nearly impossible given the lack of a suitable transportation infrastructure. That could change, however, with the development of the proposed Pebble mine. The mine's transportation infrastructure, stakeholders argue, will create access to other mineral deposits and will open the door to an extensive mining district in the upper reaches of the Bristol Bay watershed. This concern was expressed by stakeholders throughout the region and is one of the more common fears expressed by those opposing the mine. This issue also cuts in the other direction, however, with stakeholders arguing that Pebble's transportation infrastructure is a necessary component of the region's long-term economic development potential.

Finally, several stakeholders expressed concern that the Pebble mine, if developed, will put pressure on surrounding seaports to expand their facilities to meet new demands. Seaport expansion could take the form of new or upgraded facilities, deeper port access, and new onshore services to support port activities. Similar to concerns expressed over housing development and growth, stakeholders in existing seaport communities expressed concern that port expansion could overwhelm the community's capacity to effectively manage new growth. In addition, stakeholders expressed concern that port expansion to support the mining industry may occur at the expense of tourism and fishing, thus altering the character, image, and economic livelihood of the seaport town. This issue is of particular concern to seaport communities that are highly dependent on natural resource-based tourism and recreation for their livelihood.

Air Quality and Noise

Concerns about air quality and noise impacts from the proposed mine were expressed infrequently by stakeholders and appear to be overshadowed by issues of seemingly greater significance. Nevertheless, issues were raised concerning the impacts of dust and particulate matter kicked up by the mining operation and the fear that particulate matter could contain airborne contaminants from the mine's operation, producing or exacerbating lung, bronchial, and tracheal conditions. Specific concerns expressed by stakeholders regarding dust focused not only on the public health impacts of dust and particulate pollution but also the ecological impacts to tundra vegetation from changes in soil chemistry and pH. Potential impacts to tundra vegetation were of specific concern to Alaska Native stakeholders who rely on subsistence living.

Noise concerns were raised only sporadically in the interviews and may be of less significance relative to other concerns. The proposed mine is approximately 20 miles from inhabited villages, leading us to believe that noise may not be a significant issue. On the other hand, the Keystone assessment team was not able to visit the city of Nondalton, the nearest inhabited village to the proposed mine site. In our limited contact with Nondalton residents, however, concerns about noise impacts were expressed, particularly with regard to Nondalton's proximity to the proposed mine.

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Economic and Social Issues

Economic and social issues are intertwined with each other and with environmental issues, especially with regard to the Bristol Bay salmon fishery and its role in the debate over the proposed Pebble mine. Economic and social issues that stakeholders raised with regard to the proposed mine follow.

Economic Issues

Economic issues can be divided into those supporting and those opposing the proposed mine. It should be noted, however, that economic issues were not always starkly framed by stakeholders as either for or against the proposed mine. In fact, many stakeholders presented both sides of the economic coin and recognized potential costs as well as potential benefits from the proposed mine. In addition, it is significant, in our opinion, that some stakeholders expressed reluctant support for the mine because they perceived no other economic opportunities available to their communities. Some even stated that they were opposed to the mine but were desperate for economic development.

The most critical economic concern expressed by stakeholders is the potential impact of the proposed mine on the Bristol Bay salmon fishery. The salmon fishery has been described on numerous occasions as a fragile resource that supports a multi-million dollar commercial and sport fishing industry and, according to the 2004 Bristol Bay Regional Economic Opportunity Plan, makes up 88% of the region's economy. The significance of the salmon fishery suggests to stakeholders whose livelihoods depend on the fishery that the potential risks posed by the mine are extremely high. The communities of Clarks Point, Dillingham, Ekwok, New Stuyahok, Koliganek, Naknek, and Egegik are all highly dependent on commercial salmon fishing for their economic livelihoods and could, according to stakeholders in those communities, suffer devastating economic losses if the fishery is negatively impacted. In addition, economic losses to the commercial salmon fishery, they argue, will negatively impact communities dependent on commercial fish taxes as well as the Alaskan economy.

In addition, stakeholders contend that southwest Alaska has a healthy tourist economy that is based almost exclusively on sport fishing, hunting, and outdoor recreation. Tourism derived from natural resource conservation, stakeholders point out, is Alaska's second most important economic driver (next to oil and gas development) and is claimed to be the state's most sustainable economy. More specifically, the Bristol Bay and Lake and Pen region, they note, supports a tourist economy tied to its abundant natural resources; its pristine character; its access to nationally recognized resources such as Lake Clark National Park and Katmai National Park and Preserve; and its accessibility from Anchorage.

Stakeholders also pointed out that the region contains the largest Chinook salmon run in Alaska; the state's first designated trophy trout area; more wilderness recreation than any other area of the state; a thriving lodge, guide/outfitter, and rural flight service; Alaska's

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third largest caribou herd; and its largest freshwater lake – Iliamna – which supports one of only two populations of freshwater seals in the world.

Stakeholders participating in the tourist economy further argue that potential visitors may respond more to the perception that the environment is no longer pristine than to scientific evidence regarding the environmental risks. Stakeholders involved in southwest Alaska's outdoor recreation economy note that the region's draw is its pristine condition and the uniquely Alaskan wilderness experience that visitors have come to expect. Regardless of the ability of Pebble's technical experts to engineer a safe mining operation, they argue, the Bristol Bay and Lake Iliamna watersheds could be forever tainted by the mine's mere presence. This is also true, some stakeholders argue, of the Wild Alaska Salmon marketing brand, as noted below:

“Just the specter of a gigantic open pit gold and copper mine at the headwaters of the Bristol Bay is enough by itself to ruin the Wild Alaska Salmon marketing plan,” said David Harsila, president of the Alaska Independent Fisherman's Marketing Association. “These schemes pose a grave threat to pure water, Wild Alaska Salmon, and the tens of thousands of jobs they sustain.”

On the other side of the economic coin, the commercial fishing and tourist economies have not benefitted local communities equally throughout the region. The benefits from commercial fishing, stakeholders contend, accrue primarily to individuals owning 1875 Bristol Bay commercial fishing permits. To maintain a sustainable Bristol Bay salmon fishery, the State of Alaska regulates a limited number of driftnet permits. Approximately 52% of those permits are currently owned by non-resident fishers. This number has grown steadily since the inception of the permitting program in the mid-1970s when fewer than 30% of permits were owned by non-resident fishers. A severe decline in the salmon fishery in the mid-1990s, we were told, caused many resident fishers to sell their permits and capitalized investments in boats, nets and equipment at bargain prices, most often to non-residents. While the fishery has since recovered, former permit holders are not able to fully participate in the recovery. With few other economic opportunities available to them, many former resident fishers are without a means of livelihood and are desperate for economic opportunity.

In addition, stakeholders report that gas and energy prices and the cost of other services have skyrocketed while the price of salmon in the commercial marketplace has not increased, due in part to commercial salmon farming around the world. In fact, prices per pound for the five species of salmon caught in Bristol Bay have not increased since 1994, the earliest year that records are available online (www.cf.adfg.state.ak.us).

The Bristol Bay Economic Development Corporation (BBEDC) is helping Bristol Bay residents buy fishing permits under a loan program initiated in the spring of 2008. With the help of a local bank, BBEDC will guarantee loans to qualified residents, provide financial help through interest subsidies and sweat equity, and teach permit holders to manage a salmon business. Qualified residents, however, include permanent residents of 17 communities inside the BBEDC Community Development Quota (CDQ) boundary.

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Unfortunately, CDQ assistance does not accrue to residents of Igiugig, Kokhanok, Pedro Bay, Iliamna, Newhalen, Nondalton, New Stuyahok, and Koliganek since their communities are not within 50 miles of the Bering Sea.

The CDQ program provides economic benefits in other ways as well including fishery-related community development projects and support for education and training. Projects funded with CDQ funds include construction and maintenance of infrastructure, such as ports and processing plants, purchase of fishing gear, investments in vessels, and training in fishing industry jobs. While the CDQ program provides economic benefits to fishing communities, however, it adds to what some stakeholders refer to as a “haves and have nots” situation in which some communities and individuals are economically stable while others are not. The CDQ program contributes to this situation, they argue, by benefitting some communities and individuals and not others. While positions in favor of or against the proposed mine do not align along strict CDQ boundaries, there is some indication from stakeholders that such factors play a role in how they view the proposed mine.

Moreover, stakeholders reported that jobs in other sectors of the local economy are either rare or are unavailable to many local residents. Some stakeholders reported that seasonal jobs in the tourist economy were not available to Alaska Native tribal members, or that tribal members could not qualify for such jobs. The combination of limited fishing licenses, limited job opportunities in the fishing and tourist economies, and higher costs for food, fuel, and supplies has created near desperate economic and social conditions for many stakeholders.

Social/Cultural Issues

Like economic issues, social issues can be divided into stakeholder interests in support of and opposed to the proposed mine. Also like economic issues, it should be noted that stakeholders raising social issues represent a broad spectrum of interests regarding the proposed mine. In addition, it is again worth noting that some stakeholders expressed reluctant support for the mine because they perceived few other opportunities available to themselves and their communities. Some stated that they were opposed to the mine but saw few options for maintaining community social stability.

The principal social issues facing the Bristol Bay region involve the loss of economic opportunity and subsistence living stemming in part from the conditions described above. Stakeholders report that communities lacking economic opportunity are experiencing high unemployment, decreased school enrollment, a net outmigration of young people (census data show that the Bristol Bay school-aged population declined by 17% from 2000-2006), the loss of cultural stability, and increases in crime, drug and alcohol abuse, poverty, heart disease, and public assistance. Statistics for the Lake and Peninsula Borough, for example, indicate that in 2005 20% of the Borough’s total population and fully 30% of children under the age of 18 lived in poverty (www.ers.usda.gov). Perceptions among some stakeholders are that these rates are even higher today due to increased costs for food, energy, and transportation and to a growing reliance on a cash economy (and less on bartering and subsistence living).

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These conditions have created a strong desire among many stakeholders to look favorably at the economic opportunities and social amenities that are presented by the proposed mine. Stakeholders hopes and dreams, we were told, are that the mine's presence can result in "a net gain on every front – more fish, funds for schools, a good economy, better jobs, better health, and opportunities to take vacations." Stakeholders told us that they and their families and communities want to "thrive, not survive." Stakeholders also mentioned that they would like to actively participate in the economy produced by the mine through company jobs requiring higher skill levels such as environmental management, accounting, engineering, and science. Such positions, some stakeholders felt, would allow them to fulfill their fiduciary responsibilities as caretakers of the land. Some stakeholders also expressed the hope that they could develop local businesses to support the mine's operation.

Stakeholders open to the potential opportunities presented by the proposed mine also expressed concerns with how the mine would be developed and operated. Principal social and cultural fears associated with the mine include the potential for a boom and bust economy, the influx of new people and "imported perspectives," the loss of cultural stability and subsistence living, relegation to lower paying jobs while skilled jobs are given to outsiders, higher costs for goods and services and increased dependency on a cash economy, increased public health problems, and increased exposure to drugs, alcohol, and "outside" influences. Finally, some stakeholders expressed the concern that the proposed mine will be jointly owned by two international companies with few ties to Alaska or the United States – Northern Dynasty, a Canadian-owned company, and Anglo American, a British-owned company. These concerns revolve around the perceived lack of the companies' commitment to Alaska Native communities, concerns that mining profits may flow out of Alaska and the U.S. economy, and concerns regarding the difficulty U.S. authorities may have in enforcing laws against foreign companies.

These concerns are also shared by stakeholders who see no net benefits from the mine's development and are skeptical of Pebble's commitment to preserving cultural values and providing social benefits. They point to the poor record that many mining companies have with regard to human rights issues and the false promises that such companies sometimes make, especially in situations where Native people are desperate for economic development and are vulnerable to such promises. The argument raised by some stakeholders as it relates to the proposed Pebble mine is that some Alaska Native communities in the Bristol Bay and Lake Iliamna watersheds may be willing to accept higher levels of risk to the environment and public health because of their dire economic and social conditions and because they are desperate for economic development. They are therefore not in a position to oppose the mine, even though they do not want it to be developed. They are, in a sense, trapped by their economic and social situation and are vulnerable to the prospects of economic development.

For some stakeholders focused on the proposed Pebble mine, this raises concerns over Environmental Justice (EJ), which the USEPA defines as,

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...the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies (www.epa.gov).

Planning and Public Policy Context

The Keystone Center assessment team recognizes that the Pebble Partnership will require some 67 permits in order to develop a mine at the proposed location. It is not the intent of this assessment to describe or analyze the required permits or the permitting process. However, the assessment team did feel it was helpful to describe the existing planning and public policy context within which the mine is being proposed. This context, we believe, is a significant component of the decision making process. While the planning and public policy context can be analyzed on several levels, we focused on the current Bristol Bay Area Plan for State Lands, which provides policy direction for natural resource planning and management within the Bristol Bay watershed. Several state officials recommended that we consult this document in our assessment of the feasibility of a stakeholder dialogue.

The proposed Pebble mine is on state lands that are administered by the Alaska Department of Natural Resources (DNR). These lands are managed as multiple use resources for the benefit and enjoyment of the people of Alaska. Alaskans, we were told, recognize that the responsible development of natural resources on State lands contributes to the economic wellbeing of residents by providing revenues to the State. In fact, the Alaska Constitution is the first to recognize the importance of natural resources:

It is the policy of the State to encourage the settlement of its land and the development of its resources by making them available for maximum use consistent with the public interest.

Moreover, Alaska residents do not pay State income and sales taxes but, instead, receive an annual dividend from the interest accrued on royalties paid to the State by oil companies operating in Alaska. Thus, as was pointed out to the Keystone assessment team by more than one state official, Alaskans generally support resource development.

Within this context, DNR manages natural resources pursuant to a planning process guided by broad public interests in economic development, outdoor recreation, and environmental protection. In the region of the proposed mine, decisions are guided by the Bristol Bay Area Plan, which was revised as recently as 2005.

To give substance to the plan, DNR defined regions within the Bristol Bay Planning Area and within each region developed a management intent, mapped management units, and designated primary land uses for each unit. According to the plan:

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A land use designation recognizes uses or resources that are of major importance in a particular management unit. Management unit designations are based on current and projected future use patterns and the most significant resources identified in each management unit. DNR will manage activities in the management unit to encourage, develop, or protect the uses or resources for which the unit is designated.

The proposed Pebble mine is contained within Region 6 – the Nushagak, Mulchatna region. State land in the region is to be managed for a variety of multiple uses including,

...settlement, materials extraction, public facilities development, dispersed public recreation, mineral exploration and development, and maintenance of sensitive wildlife habitats.

With regard to mineral development, the plan states that, “almost all state land within the planning area is managed for multiple use and is open to mining.” Further, the plan states that “the state selected much of the land in the planning area because of its mineral potential, as well as its potential for oil and gas, agriculture, and its recreation and wildlife values.” The plan also recognizes the “considerable investment of time and monetary resources” in the exploration and development of mineral resources as well as the “small fraction of prospects” that produce a return. However, while the plan gives preference to mineral development where it is determined to be economically viable, it promises to protect other resource values:

If a deposit proves economic for development, state and federal regulations and additional stipulations determined through the permitting process, will ensure that other resource values are protected.

The Pebble Project, and near-by deposits, are mentioned on several occasions in the Area Plan and are described as follows:

The Pebble porphyry copper-gold-molybdenum deposit was discovered and generally outlined by Cominco American through drilling on the property to 1997. Recent geochemical and geophysical surveys have substantiated that the Pebble deposit is only part of a much larger series of metal-rich, coalescing hydrothermal sulfide systems. The mineralized zone is approximately 1.7 kilometers by 1.3 kilometers in size. A recently-completed (2003) independent mineral resource estimate has established the Pebble deposit as one of the world's largest gold and copper resources, containing 13.1 million ounces of gold and 6.8 billion pounds of copper.

The management intent put forth in the Area Plan for the Pebble Copper (R06-23) and Pebble Streams (R06-24) management units is described as follows:

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The general resource management intent for the Pebble Copper area is to accommodate mineral exploration and development and to allow DNR the discretion to make specific decisions as to how development may occur, through the authorization process... Mineral development in this unit is expected to be authorized after a public process that is as extensive as this Area Plan, and with the benefit of site-specific data and design that is prepared for the development and not now available. (p. 3-112).

Finally, the Area Plan describes an additional management intent for streams within the R06-24 management unit:

Mineral development within R06-24 should be performed in such a manner as to ensure that impacts to the anadromous and high value resident fish streams are avoided or reduced to levels deemed appropriate in the state/federal permitting processes related to mineral deposit development.

The Keystone Center assessment team recognizes that the Area Plans for State Lands are far more comprehensive than we are able to describe in this report and that we run the risk of overlooking significant planning and public policy directives. However, we felt it was necessary to highlight, at the very least, directives that appear relevant to the decision making process regarding the proposed Pebble mine, and that state officials with decision making authority suggested we read.

Finally, it is important to note that several non-governmental and some governmental stakeholders raised the question of whether the decision to develop a mine of the magnitude proposed by Pebble was a “technical” decision made by permitting authorities or a “public policy” decision made by the governor, legislature, and the people of Alaska. These stakeholders argue that they are not challenging the planning directives contained in the Bristol Bay Area Plan, which was developed with public review and comment, but are recommending that the governor, legislature, and people of Alaska revisit these policies in light of the potential risks associated with the Pebble Project. They further argue that the decision to pursue technically appropriate mining alternatives through a stakeholder dialogue should *follow* a higher level policy dialogue over whether a mine of Pebble’s magnitude is appropriate in the proposed location.

Keystone Center Recommendations

It is The Keystone Center’s recommendation, based on this assessment, that a stakeholder dialogue to discuss and perhaps consider sustainable mining options is feasible, albeit challenging. The Keystone Center assessment team strongly recommends that a three-stage Dialogue Process be pursued, including, 1) Independent Science Panel events to review baseline data and assess the credibility of data collection and analysis, 2) a Joint Fact-Finding process to address valid scientific questions raised during the Independent Science Panel events, and 3) a Project Planning Collaborative designed to engage participants, to the extent possible, in the development of an environmentally and socially acceptable mining plan.

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In addition, at each stage of the proposed Keystone Dialogue, there should be clear opportunities for stakeholders, and the Pebble Partnership, to walk away from the process and pursue other alternatives. As mentioned throughout this report, the Keystone Center's goal is to help stakeholders make an informed decision about whether or not they can support a mine and under what conditions they might support a mine. The process outlined above and described below is designed to accomplish that goal.

It is the Keystone Center's sincere intent that stakeholders will, through the Dialogue Process, be able to fully assess the risks, benefits, and trade-offs associated with the proposed mine and conclude that they are either willing to move to the next stage of the Dialogue or that they have enough information to confidently, and without consequences, leave the process and pursue other alternatives, perhaps even opposing the mine. Moreover, those choices must be available to all stakeholders even at the conclusion of the Project Planning Collaborative and any follow-through that might occur should the Pebble Partnership decide to pursue necessary permits. There can be no implied or assumed support or consent associated with a stakeholder's involvement in any stage of the proposed Keystone Dialogue.

The stages recommended above are in response to the feedback received from stakeholders during the assessment process. In our judgment, there is enough interest in a Dialogue Process by a broad array of stakeholders that we are recommending that it be convened. We are recommending three stages described below.

Stage 1 – Independent Science Panels

The purpose of the Independent Science Panels (ISP) is to assist stakeholders in assessing the accuracy, credibility, and sufficiency of PLP's baseline data. PLP has been gathering environmental and socio-economic baseline data in and around the mine's proposed location for approximately five years. In May of 2008, PLP began releasing the baseline data through its Pre-Permitting Environmental & Socio-Economic Data Report Series. Pebble's CEO John Shively made the following statement in conjunction with the company's announcement to release the baseline data:

There's been a high degree of public interest in the work that our environmental and technical consultants have been performing in the project area over the past several years. And while we have always been open and willing to share the results of our work with Alaskans, the Pre-Permitting Environmental & Socio-Economic Data Report Series will formalize that process. We believe that an informed public can make a very positive contribution to the development of a responsible mine plan at Pebble.

PLP has also stated publicly that the baseline studies are "the cornerstone of environmental planning" and that the data "provide important input for the design process." Consistent with this message is Stage 1 of the Keystone Dialogue process, which is designed to assure that PLP's baseline data is reviewed by independent panels of

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scientists and technical experts who will be selected for their knowledge and expertise in the topics covered by PLP's Environmental & Socio-Economic Data Report Series.

Science Panel Topics

The Keystone Center recommends augmenting the release of the PLP Environmental & Socio-Economic Data Report Series with a series of day-long Independent Science Panels focused on four science panel topics: 1) Geology and Hydrogeology; 2) Water Quality; 3) Fish, Wildlife and Habitat; and 4) Social-Cultural and Economic dynamics. These were the principal ways stakeholders categorized their concerns and interests in the assessment process. In addition, the Keystone team recommends a fifth Science Panel focused on Sustainable Mining Practices. This is a topic area of considerable interest throughout the world and is timely in the context of the Pebble Project.

We recommend that each of the Independent Science Panels be made up of four to six individuals with expertise in the areas covered by the panels – Geology and Hydrogeology; Water Quality; Fish, Wildlife and Habitat; Social-Cultural and Economic Dynamics; and Sustainable Mining Practices. Science panel members will be selected by a Science Advisory Committee (described below) for their knowledge and expertise in the topic area, their credibility with stakeholders, and their ability to provide an independent analysis of PLP's environmental and socio-economic baseline data. Science panel members will be selected from science-based academic, government, and non-governmental institutions and organizations in Alaska, the U.S., and internationally.

The principal role of the Independent Science Panels will be to review the baseline data applicable to the topic and to provide feedback at a Keystone-facilitated ISP event focused on that topic. The specific goals of the ISP events are three-fold: 1) to help stakeholders understand the data and its meaning in the context of a proposed mine, 2) to help stakeholders assess the credibility of baseline data and its usefulness in the planning process, and 3) to identify legitimate scientific questions that the baseline data may have overlooked and recommend additional study or analysis, if necessary.

Linking the Panels to People via Interactive Video Technology

It is further recommended that the ISP process be designed to support stakeholder interaction throughout the region and, if necessary, beyond the region. This can be accomplished through the use of distance learning technology and interactive video conferencing that currently exists in hub communities throughout the region – with the exception of one key location in Iliamna/Newhalen. Distance learning consists primarily of two-way audio and video conferencing technology that can link classroom locations to a central classroom or studio via satellite or microwave transmission.

The concept involves live interactive video at each hub location so that participants can visually and verbally interact with each other in real time. Interactive video conferencing technology exists at the University of Alaska-Anchorage, Kenai Peninsula College, University of Alaska-Fairbanks' Dillingham campus, and at the Southwest Alaska

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Vocational and Education Center (SAVEC) in King Salmon. These locations are important regional hubs that people from surrounding communities can access. A third hub, Iliamna-Newhalen, does not currently have interactive video technology and such technology will have to be established, perhaps at the local high school.

The Keystone ISP process will entail a science panel event focused on each of the five topics – Geology and Hydrogeology; Water Quality; Fish, Wildlife and Habitat; Social-Cultural and Economic Dynamics; and Sustainable Mining Practices. Additional science panel events may be developed around other topics if the process appears to be productive. Each science panel event will be hosted by the distance learning center in Anchorage where PLP scientists, ISP scientists, Anchorage-based stakeholders, and a Keystone Center facilitation team will convene. Learning center hubs at King Salmon, Dillingham, Kenai, and Iliamna-Newhalen will be connected to the host location via satellite and will be attended by regional stakeholders and convened by a Keystone Center facilitator. Anchorage is recommended as the host location for the panel events due to the ability of the facility to accommodate large numbers of participants. The Keystone team will explore the possibility of hosting science panel events in other hub locations provided their facilities can accommodate participants.

The basic format for each day-long ISP event will include the following:

- Overview of the Keystone Dialogue process and the ISP stage
- Introduction of the PLP scientists and their credentials
- Introduction of the ISP scientists and their credentials
- Ground rules for how the event will be managed
- Presentation by PLP scientists of their baseline data and data collection methods
- Facilitated question and answer session of PLP scientists by ISP members
- Facilitated question and answer session of PLP and ISP scientists by stakeholders
- Facilitated discussion by ISP members regarding the credibility, accuracy, and sufficiency of the baseline data

An additional component of the Keystone Dialogue could entail broadcasting the ISP events via local cable or satellite access channels and/or local radio to people throughout the region and, perhaps, throughout Alaska. Cable or satellite access and local radio does not have the advantage of live interactive video and audio but does enable a large population to follow the discussion. In addition, video-taped ISP events can be brought to community gatherings after the event to discuss the issues raised in more detail. Additional copies can be distributed to villages and town libraries.

ISP Challenges

Challenges with the ISP process include the following. First, the Keystone team recognizes an inherent challenge in integrating traditional ecological knowledge (TEK) with conventional western scientific approaches to developing and understanding baseline information. Our goal is to find ways of bridging this gap by working with Alaska Natives and the AK Department of Fish and Game Subsistence Division and

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others with experience integrating this body of knowledge. In developing and carrying out the assessment process we have actively sought individuals with such experience.

Second, it may be a challenge to fund the participation of ISP scientists since funding by PLP may raise questions of independence and impartiality of the panel members. It will therefore be necessary to identify ISP scientists who are already funded, such as through an academic institution, or identify an independent and impartial source of funding, such as a foundation or government grant. The Keystone team is exploring alternative funding sources for science panel members who require funding to participate.

Third, there are considerable costs associated with convening the ISP events using distance learning technology, including satellite time, learning center facility rental and technical assistance, panel member and facilitator costs, and the purchase of additional equipment and support to establish a hub in Iliamna-Newhalen. These costs have not yet been fully estimated by the Keystone team.

Finally, there is a concern that the ISP events may be poorly attended, or attended primarily by “professional” stakeholders, since the events are focused on baseline studies of existing conditions. Further, there is a concern that some stakeholders may use the panel events to either attack or defend the available baseline science leaving no genuine opportunity for open, objective discussion, dialogue and learning.

Projected Outcomes

Because of the importance of the baseline information to the planning process, and due to the controversy surrounding the release of the information by PLP, the Keystone team believes that a process to credibly review the baseline data is a critical starting point and will require the above challenges to be effectively managed.

These challenges will all need to be addressed if the ISP process moves forward. The Keystone Center believes strongly that these challenges can be overcome and that the value of convening the ISP process outweighs the risks involved. The projected outcomes of the independent science panel process are three-fold. First, and most important, is that the information coming out of the process will create better informed citizens, public managers, and political leaders.

Second, the process itself challenges technical experts to produce the best information possible leading to the best possible use of that information in PLP decisions regarding the proposed mine. Peer review of science is one of the foundations of the scientific process and leads to fundamentally better science.

Third, the process allows PLP and its technical experts to be accountable to the public and to demonstrate the credibility of their work to date. This credibility will be extremely important as the process moves forward. Moreover, if people do not know whether to trust the information used to make decisions, they will be reluctant to apply that information in their assessments of proposals being offered.

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Science Advisory Committee

The Keystone Center also recommends that the ISP stage be guided by a Science Advisory Committee composed of individuals with expertise paralleling the Science Panels and panel topics. The principal role of the Science Advisory Committee will be to help the Keystone Center identify appropriate scientists to participate on each of the Science Panels and to plan and oversee the panel process. We therefore recommend that the Science Advisory Committee be made up of six to ten individuals with expertise in Geology and Hydrogeology; Water Quality; Fish, Wildlife and Habitat; Social-Cultural and Economic Dynamics; and Sustainable Mining Practices. We also recommend an additional member or members with a strong understanding of traditional ecological knowledge (TEK) and in providing the bridge between TEK and conventional science. We anticipate that Science Advisory Committee members will be affiliated with science-based academic, government, and non-governmental institutions and organizations in Alaska and the U.S.

A particularly important focus of the Science Advisory Committee will be on the integration of conventional science and traditional ecological knowledge (TEK). It is uncertain at this point how best to bring both of these “ways of knowing” into the independent science panel process described above. Recommendations vary from placing respected TEK “experts” on each panel to providing TEK sessions within each of the five panel events to convening a sixth panel event focused exclusively on TEK.

Stage 2 – Joint Fact Finding

Stage 2 of the proposed Keystone Dialogue will focus on gathering new information, if necessary, to answer valid questions that are raised during the Independent Science Panel events. This stage is basically a Joint Fact Finding (JFF) stage in which new information is collected in such a way that stakeholders are assured of its accuracy, credibility and sufficiency. For this stage we envision three possible procedures for moving forward: a) PLP and non-PLP scientists working together to gather new data, b) an independent monitoring and review panel – perhaps the Science Advisory Committee – helping to design and oversee the collection of data by PLP scientists, or c) the co-identification of independent and trusted scientists that all parties find credible.

The choice among these options will depend on how stakeholders perceive PLP baseline data as it is presented and reviewed in Stage 1. If baseline data is generally perceived by stakeholders as being credible and trustworthy, stakeholders will likely recommend that PLP scientists gather new data with minimal stakeholder involvement and oversight. If, however, baseline data is generally perceived as being untrustworthy, added involvement and oversight in the collection of new data will likely be recommended. Because Joint Fact Finding is highly dependent on the outcome of the Independent Science Panels, it is difficult to describe the JFF stage in more detail. It is possible, however, to conceptualize how the JFF stage is expected to unfold.

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The goal of the Joint Fact-Finding stage is to jointly identify and address valid scientific questions that emerge from the ISP events. These questions are designed to address, 1) baseline data gaps (i.e. missing or incomplete information) and 2) the relationship between baseline data and potential mining risks that are suggested by the data (e.g. what does the seismic data tell us about the risk of an earthquake?). Because the questions emerge from an ISP event, the JFF process is envisioned as an immediate follow-on to the ISP event and will take advantage of the momentum created by the event (see diagram in Appendix C).

The process to explore the question will include a JFF working group and a procedure for moving forward (from the choices listed above). The critical differences between the ISP and JFF stages are that while the ISP is being carried out by PLP and is focused on baseline data, the JFF stage is carried out with the active engagement of stakeholders working in conjunction with PLP and other scientists and is focused on both baseline data and relevant questions that go beyond the baseline data to include risk assessment associated with potential mining scenarios. If necessary, the JFF working groups will be facilitated by the Keystone Center working in conjunction with Alaska-based facilitators.

As a follow-on to the ISP process, a JFF working group or groups will be convened by the Keystone Center at the end of each ISP event to take advantage of momentum generated from the events themselves. As mentioned, however, the structure and procedure of each JFF working group is highly dependent upon the outcome of the ISP process. Thus it is difficult to be more specific about the structure or need at this time.

JFF Challenges

The challenges and opportunities posed by the JFF stage are similar to those of the Independent Science Panels with the addition that new studies will require time, expense, and coordination as well as the need for JFF protocols and joint monitoring procedures.

A significant additional challenge associated with Joint Fact-finding lies in determining the validity of scientific questions and their appropriateness for a particular JFF working group. There are generally two factors that must be considered here. The first has to do with the “fit” between the project or policy being discussed and the scientific questions being raised. Sometimes, we have found, the questions stakeholders raise, while relevant, cannot be adequately addressed in the forum that has been established and require a more appropriate forum.

This is especially true in a permitting context. In such a context, valid questions are sometimes raised that cannot be addressed within the timeframe of the permitting process or need to be addressed in another forum altogether. Unfortunately, it is often the case that the proper forum does not exist and stakeholders therefore use the present forum to raise their questions. This challenge often arises when stakeholders wish to raise overarching public policy questions within a forum focused specifically on technical issues. This disconnect can often be very frustrating for stakeholders.

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The second factor that must be considered, especially in highly contentious situations, is the potential misuse of the JFF process that can occur when stakeholders demand definitive answers to scientific questions that contain inherent uncertainties. This situation poses a particular challenge for JFF because of the likelihood that the uncertainties will remain (i.e. at the end we still may not have all the answers). While the scientific questions raised here are usually valid, the demand for definitive answers in the face of uncertainty is sometimes used to delay controversial projects or policies pending “further study.”

An appropriate response to valid scientific questions containing inherent uncertainties is to establish an “adaptive management” framework within the JFF process that allows scientists and stakeholders to pose hypotheses that can be tested and adjusted through active monitoring and feedback loops. In highly contentious situations, however, stakeholders may still demand definitive answers before moving forward. It will fall on the Science Advisory Committee and Independent Science Panels to determine the most appropriate and effective ways to address these challenges should they arise.

Stage 3 – Project Planning Collaborative

Assuming that a broad spectrum of stakeholders have moved through the ISP and JFF stages, they should have enough information to determine whether they are willing to explore and provide input into environmentally and socially preferred mining scenarios without committing to supporting any of them. At this stage of the proposed Keystone Dialogue, we will be looking for acceptance among a spectrum of stakeholders for a facilitated Project Planning Collaborative (PPC) – primarily from representatives of the three groups that make up the mid-section of our stakeholder continuum. These groups again are, 1) stakeholders who are opposed to the mine but feel that it will likely be permitted under current regulations and want to influence its design, 2) stakeholders who do (or did) not have enough credible information to accurately evaluate the risks and benefits of a mine, and 3) stakeholders who are supportive of the mine and believe that a dialogue can improve its design.

We are not considering representatives from outlying groups that oppose or see no need for a Dialogue. While we welcome their participation, we do not feel they are essential for the Project Planning Collaborative to move forward. The loss of representation from one or more of the remaining categories, however, is a more significant concern and could diminish the credibility of the PPC by skewing the balance of representation in one direction or another.

We are seeking participation from stakeholders who represent the various issues, and perspectives on those issues, that need to be addressed in the planning process. These broadly include overlapping environmental, economic, and social/cultural issues and track closely with the issues identified in the stakeholder assessment described above. We are seeking participation from stakeholders who represent potential losses from the proposed mine’s negative impacts including commercial, sport, and subsistence fishing

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and hunting; habitat loss and degradation; declining public health; and the loss and displacement of Alaska Native culture.

We are also seeking participation from stakeholders who represent potential gains from the proposed mine's positive impacts including economic development and employment; new social and cultural amenities; community revival; and infrastructure development, improvement, and maintenance. Finally, we are seeking participation from stakeholders from the three sub-regions that are primarily impacted by the proposed mine – the Bristol Bay and Lake Iliamna watersheds and the Kenai Peninsula.

This rather complicated breakdown involves identifying representation across three somewhat overlapping dimensions including, 1) the continuum of opposition, neutrality and support, 2) the set of environmental, economic and social/cultural issues that comprise peoples' "stake" in the decision-making process, and 3) their distribution across the landscape. This breakdown aligns with how stakeholders generally categorize themselves – in terms of their stance with regard to the proposed mine, their principal interests or stake, and their sense of place in the context of the proposed mine. It is our belief that these ways of self categorization are necessary components of the Keystone Dialogue process and will benefit the process by their inclusion.

We are recommending that the PPC include perhaps 25-30 individuals who are selected for their ability to represent stakeholders with shared perspectives, interests, and place-based commonalities with regard to the proposed mine. The PPC will follow a phased collaborative problem-solving approach that will be designed in conjunction with the Science Advisory Committee or a modification of the committee to accommodate Dialogue process changes.

It is unclear at this stage how long the Project Planning Collaborative will function. Since the principal goal of the PPC is to explore and provide input into environmentally and socially preferred mining scenarios that could then proceed through the permitting process, it is logical to assume that the group could remain active throughout the permitting process, and perhaps beyond. In projecting possible scenarios for an on-going role, the PPC may be involved in additional joint fact-finding, exploring and offering modifications that may arise during the permitting process, and/or in a long-term capacity in monitoring and oversight during construction and operation.

Finally, the Keystone Center recommends that the PPC stakeholder group go through a Keystone-led interactive training workshop focused on interest-based negotiation skills. The goal of the workshop is to build capacity within the group to negotiate with each other and to "level the playing field" between those who have expertise in negotiation and those who do not. The Keystone Center is aware that facilitated processes are not always advisable when disparities exist between stakeholders with expertise in negotiation and those without such expertise. Overcoming these disparities through interactive training and capacity building provides a way to allow the facilitated dialogue to move forward. Interactive training also provides an opportunity for stakeholders to build working relationships with each other before the actual negotiation.

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Tentative Timeframe/Schedule

Below is a brief and tentative timeframe and schedule for the release of the stakeholder assessment and dialogue feasibility report (this document) as well as for the proposed Keystone Dialogue process.

Stakeholder Assessment and Dialogue Feasibility Report

The Stakeholder Assessment and Dialogue Feasibility Report needs to be fully responsive to stakeholders, therefore, the report will be emailed to stakeholders involved in the interview process as well as those for whom we have a current email address, including PLP. We will ask stakeholders to respond with their comments within a two week period. We will then finalize the assessment report and present it to both Pebble and stakeholders by September 30, 2008. Modifications to the assessment report could alter the timeframe for Keystone Dialogue however a proposed timeframe is presented below.

Timing for Dialogue Stages

The following schedule is based on the assumption that the proposed Dialogue will go forward as recommended. A proposed timeline is graphically represented in Appendix D. Changes during the review process may alter this schedule

Stage 1 – Work will begin on the Independent Science Panels in September with the convening the Science Advisory Committee to suggest and select potential ISP panelists. The hope is to complete two ISP events in 2008 and three in the first half of 2009.

Stage 2 – The Joint Fact Finding process will be more fully developed during the establishment of the ISP events, using the Science Advisory Committee to help the Keystone team develop a meaningful process. This stage will emerge from and build on momentum from the ISP events and lead directly into JFF discussions. JFF “working groups” will emerge from the ISP event and will follow the same schedule, with two convening in 2008 and three in 2009.

Stage 3 – The Project Planning Collaborative provides the greatest uncertainty and will require the most time and resources to identify an appropriate balance of representatives to engage in the collaborative process and to develop agreements and operating protocols as to how the group will work together including goals, discussion guidelines, rules for reaching agreements, working with the media, working with constituencies, and assurances that involvement does not represent acceptance or support of a proposed mine. Work will begin immediately on designing and forming the PPC.

Justification for the Proposed Strategy

As the assessment team ventured into this process, the task before us was to assess the feasibility of a dialogue to address the issues raised by stakeholders with regard to the

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proposed Pebble mine. What we discovered as we began talking to stakeholders, however, was that many of them felt that they could not adequately answer the question we were posing – do you think a dialogue to address the issues is desirable and feasible? – because they did not have enough information, or did not trust the information they were receiving. We also learned that many of the stakeholders with technical expertise were frustrated with the lack of baseline information being released by PLP. This lack of information, according to many, was creating a vacuum within which much speculation and a polarized media-driven debate over the data ensued. Many stakeholders told us that they did not feel they could trust either side’s information and that the polarized debate was not shedding light on the issues of most concern to them.

Pebble’s decision to release baseline information through its Pre-Permitting Environmental & Socio-Economic Data Report Series was designed, in part, to respond to the concerns expressed above. While Keystone’s assessment team supported this decision, we also felt that without a structured independent process to review and assess the credibility of the information being released, the polarized media-driven debate would escalate and stakeholders would be no closer to having their questions answered. Since the stated goal of the Keystone Dialogue is to help people make an informed decision about the mine, we concluded that the Dialogue process must start with an independent and credible process to review the baseline data. The ISP process provides a workable model of this approach and was well-received by stakeholders when it was introduced.

The JFF and PPC processes flow from the ISP process and offer a logical way of transitioning from the baseline data to the mine planning process, if stakeholders are willing to take the next step together. In addition, the ISP process will build capacity among stakeholders to better understand the geophysical, ecological, social, and economic dimensions of the planning process and will be in a more informed position to evaluate the risks, benefits, and tradeoffs associated with the proposed mine. Skipping this step, we felt, could diminish peoples’ capacity to make informed decisions regarding the proposed mine and limit their ability to fully engage. Following Thomas Jefferson’s lead, we feel strongly that an informed public is an empowered public.

Summary

The Keystone Center’s independent stakeholder assessment and dialogue feasibility study for the proposed Pebble mine is an attempt to identify and summarize the primary issues associated with the development of a mine at the proposed location through interviews with a cross section of stakeholders potentially impacted by the mine. The Keystone assessment team approached the assessment process by first contacting a cross section of stakeholders identified by PLP and then expanding the list to include individuals recommended by those with whom we spoke.

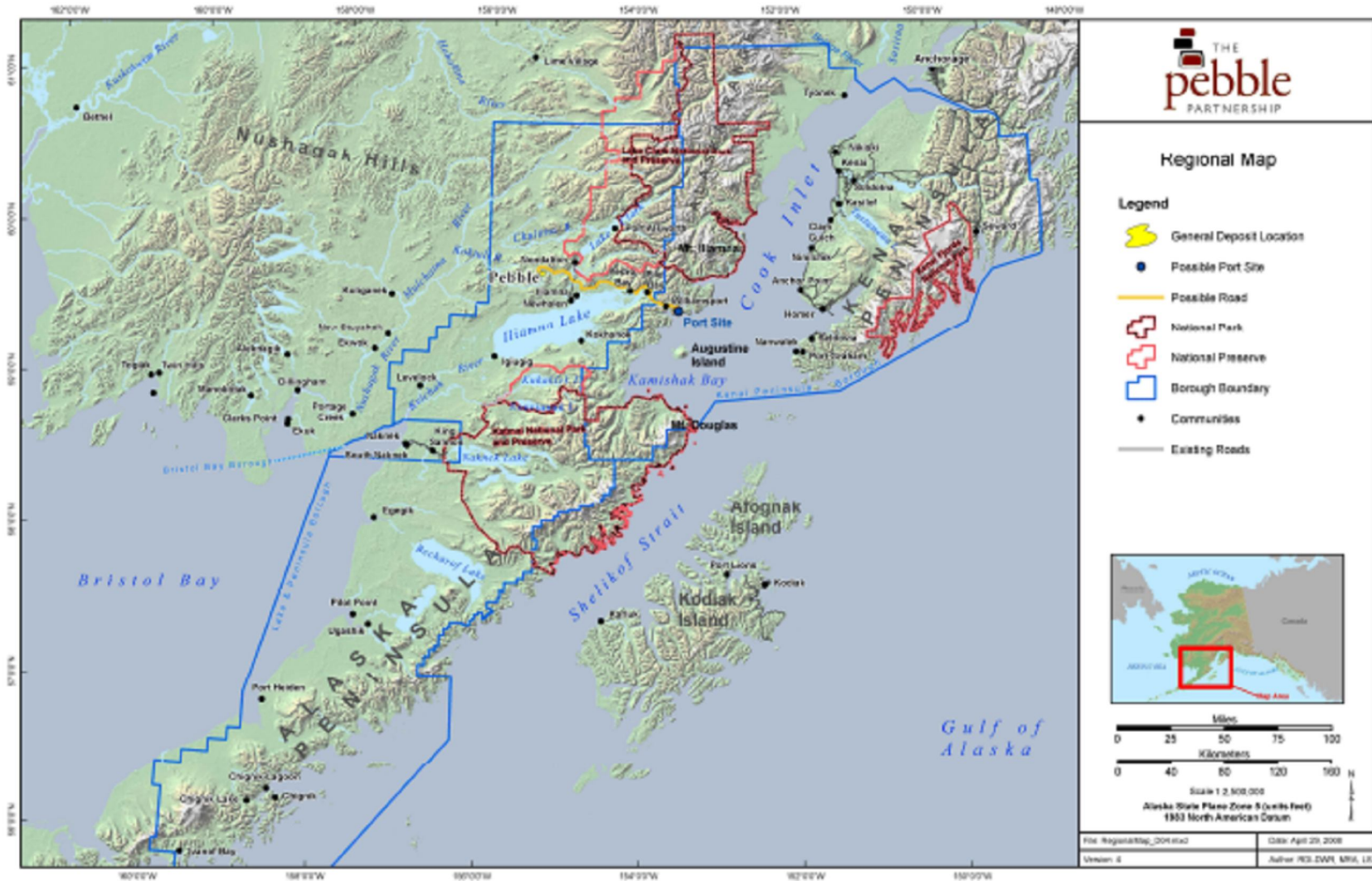
The Keystone assessment team interviewed stakeholders with varying perspectives regarding the environmental, economic, and social impacts associated with the proposed mine, and who were located throughout the sub-regions potentially affected. The assessment team travelled to Anchorage, Bristol Bay, the Lake and Peninsula region, and

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the Kenai Peninsula to describe Keystone's role and to listen to diverse perspectives regarding the proposed mine. In addition, the assessment team talked with individuals outside of the region, including individuals in Alaska and the lower forty eight.

Based on stakeholder interviews, and on documents suggested by stakeholders, the assessment team recommends that a three-stage Keystone Dialogue process be initiated, with the specific goal of helping people make an informed decision about whether they want a mine at the proposed location and under what conditions they might consider a mine at the proposed location. The Dialogue, as proposed, is designed to enable stakeholders to fully assess the risks, benefits, and trade-offs associated with the proposed mine and to choose to move to the next stage of the process or to confidently, and without consequences, leave the process and pursue other alternatives, including actively opposing the mine. While the Dialogue process will likely change as it evolves, the Keystone Center is ready to move forward with the three-stage process.

Appendix A:



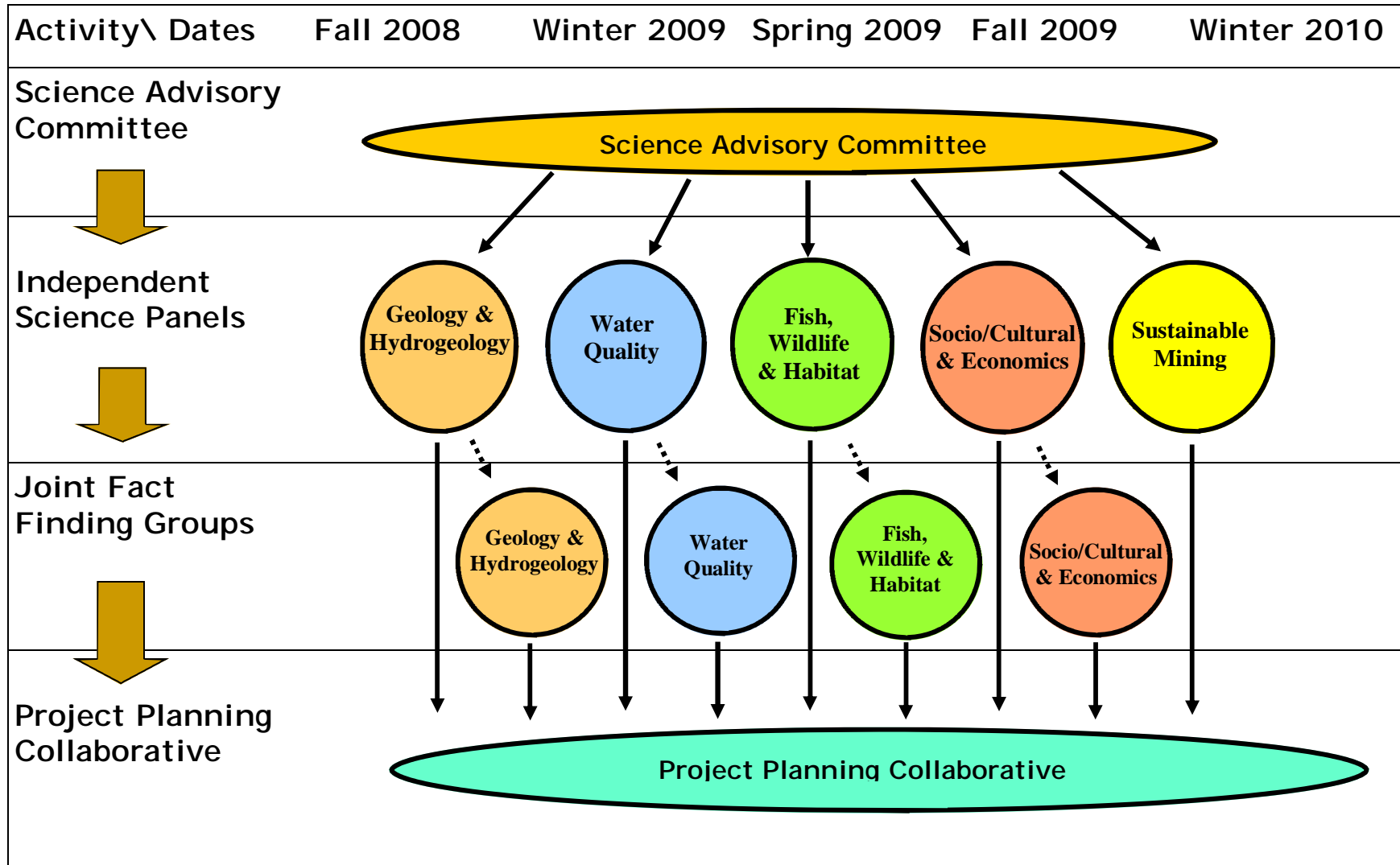
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Appendix B: Stakeholders Participating in the Assessment

This list is comprised of participants in the assessment process who were either interviewed one-on-one, participated in group discussions, or attended one of the gatherings that were held as part of the assessment process (some came simply to listen). Conversations were conducted in person and by phone. This is not a full list of people we heard from since on some occasions we were not able to identify all of those who attended the small group discussions or the gatherings. In addition, the stakeholders below are not all affiliated with the organizations they are listed beside. In some cases, the organization hosted a gathering and invited participants from their communities.

1. AK Department of Environmental Conservation – David Johnson
2. AK Department of Natural Resources – Tom Crafford, Ruth Hamilton Heese, Dick Mylius
3. AK Governor’s Office – Joe Blalash
4. AK Nature Conservancy – Randy Hagenstein
5. AK Office of Habitat Management and Permitting – Al Ott
6. AK Office of Project Management and Permitting – Ed Fogels
7. Aleknagik Natives Limited – Bobby Andrew
8. Aleknagik Traditional Council – Daniel Chythlook
9. Anchor Point resident – Ken Markve
10. Bristol Bay Economic Development Corporation – Robin Samuelson, Joe Faith, Kim Williams, Ron Bowers, Tom Tilden, Luki Akelkok, Sr.
11. Bristol Bay Native Corporation – Tiel Smith, Tom Hawkins, Jason Metrokin
12. Bristol Bay Area Health Corporation – Robert L. Clark
13. Center for Science in Public Participation – Dave Chambers
14. The Conservation Fund – Glenn Ellison
15. Cook Inlet Aquaculture Association – Gary Fandrei
16. Cook Inlet Regional Citizens Advisory Council – Mike Munger
17. Cook Inlet Regional Inc. – Ethan Schutt
18. Curyung Tribal Council – Thomas Tilden
19. Dillingham City – Chow Taylor
20. Dillingham Mayor – Alice Ruby
21. Earthworks, Washington D.C. – Stephen D’Esposito
22. Egegik officials and residents - Richard Deigh, Beth Pokorny, Don Strand, Virgie Alto, Hoss LeFevere, Richard Alto, Ben Chernikoff, Scovi Deigh, Ernest Kunz
23. Egegik Tribal Council – Carrie Bakk, Darrel Bakk, Wendy Olsen, Scott Olsen
24. Homer Chamber of Commerce – Tina Day
25. Homer Electric – Joe Gallagher
26. Iliamna Resident – Chip Henderson
27. Independent Fisheries Biologist – Carol Ann Woody
28. Katmai Fishing Adventures – Nanci Morris
29. Kenai Mayor – Pat Porter
30. Kenai Peninsula Borough – Bruce Richards
31. Kenai Resident – Jason Carroll
32. Kijik Corp. – Betty Chilcott, Carolyn Finney
33. Kijik Corp. & Pilot Point Village Council – Ventura Samaniego
34. Lake and Peninsula Borough officials – Glen Alsworth, Lamar Cotten
35. Lake and Peninsula Borough advisor – Bob Loeffler
36. Levelock officials and residents – George Wilson, Sr., Sergie Chukwak, Peter Apokedak, Sr., Nick Apokedak, Brian Apokedak, Sally Chukwak, Bonnie Ross, Gustie Talekpalik, Louise Talekpalik, Katie Copps-Wilson, Mary Apokedak
37. Michael-Moran Associates – Bob Moran
38. National Park Service – Bud Rice
39. Newhalen Tribal Council – Joann Wassallie
40. Nikiski Chamber – Scott Hamann
41. Nondalton City – Clara Trefon
42. Numanta Auluskstai – Terry Hoefflerle, Mike Kroenke
43. Nushagak & Mulchatna Land Trust – Tim Troll
44. Peter Pan Seafoods – Norm Van Vactor
45. Renewable Resources Coalition – Danny Consenstein
46. Soldotna Mayor – Dave Carey
47. Soldotna Resident – James Trissel
48. Taurianen Engineering – Mike Tauriainen
49. The Wilderness Society – Lydia Olympic
50. Tyonek resident – John McCullen
51. U.S. Army Corps of Engineers – Leroy Phillips
52. U.S. Environmental Protection Agency – Cindy Godsey, Running Grass
53. U.S. Fish and Wildlife Service – Phil Brna

Appendix C: Keystone Dialogue Process



—————> Information ·······> Valid questions

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Appendix D

Telestore Gate Dialogue Process																	
Project Timeline																	
	2008					2009											
	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Independent Stakeholder Events		planning	*	*		*		*									
Stakeholder Advisory Committee		*		*													
Joint Fact Finding		planning	*			*	*		*								
Project Planning Collaborative		planning and coverage					*	*	*	*				*	*	*	*
Reduce Risks				1		2					3						
*=Project Events																	
1=asses where the joint fact findings should begin																	
2=asses where the collaborative planning should begin																	
3=asses where the collaborative is working																	