

Pebble Project Technical Working Groups

Wildlife Meeting

Subject – Bear Study

(Atwood Building, Room # 1420)

Final Minutes/As of January 12, 2008

October 11, 2007

Attendees:

Charlotte MacCay (Bristol/PLP)

Earl Becker (ADF&G)

Judy Putera (NPS)

Steve Matsuoka (USFWS)

Terry Schick (ABR)

Brian Lawhead (ABR)

Grant Hilderbrand (ADF&G)

Serena Sweet (Corps of Engineers)

As with all Technical Working Group Meetings, the minutes reflect discussion of suggestions and concerns raised by individuals. Discussion does not reflect any decision making or consensus from the group (with the exception of electing a lead).

Meeting Purpose

Alaska Department of Fish and Game personnel Grant Hilderbrand, Earl Becker and Sean Farley met with ABR consultants and Charlotte MacCay to discuss bear study planning in relation to the Pebble Project. This meeting was held to provide a summary of their discussion to the Wildlife TWG members.

Administrative Issues:

- A reimbursable services agreement (RSA) between ADNR/ADF&G and PLP can provide funds for ADF&G staff time associated with the Pebble Project. This RSA is under development and waiting for the Commissioner's and PLP's review and approval.
- An additional RSA may be applicable to staff an ADF&G biologist position to participate in the bear study for the Pebble Project. A draft RSA will be prepared after the scope of work for the bear study has been determined.
- ADF&G is not looking to support or to impede the Pebble Project, rather their primary concerns are to have adequate information to meet ADF&G permitting obligations including addressing public concerns regarding potential project impacts on wildlife and to acquire information to effectively manage wildlife populations in Game Management Units 17B, 9B, and 9A.

- ADF&G is not currently pursuing bear research projects in this area because current management practices are adequately addressing management needs.
- Management concerns will change if the project is built, and may lead to an interest for more research on bear ecology.
- A public involvement process is needed before beginning a bear collaring study.
- Ongoing consultation between ADF&G and ABR regarding study needs will occur and another meeting will be planned for the first week of December when ADF&G area wildlife biologists are already in Anchorage. This consultation is intended to develop a general study concept by that time, including sample size, division of labor, use of collars, and other relevant considerations.

Study Considerations:

- The high public profile and potential large size of the Pebble Project and access corridor may result in a broader scope of study than typically would be required for a mine permit application.
- The length and nature of the possible access-road corridor could result in the need for a long linear study area over a broad region containing numerous habitat types.
- Both brown and black bears occur in the study area. There may be two subpopulations of brown bears (one largely in the Cook Inlet coastal area and the other farther inland), but is not known without more study.
- It is possible that the genetic fitness of female brown bears varies across the project region. Learning more about this possibility may provide information helpful to manage the population effectively by minimizing potential impacts on the more productive individual animals.
- Potential public access changes associated with the construction of the road, could lead to new pressures on wildlife populations and increased information needs for management.
- The potential impacts of new road access on bears are of greater concern than mine site impacts on bears.
- There is a strong seasonal component to bear movements in response to seasonal availability of foods, among other factors.
- Consider integrating local knowledge into study planning.
- Potential length of a bear study would be at least 1–3 years.
- Female brown bears have a 3–4 year reproductive cycle.
- Use of PLP-chartered helicopters will be helpful for support of bear capture operations; ADF&G requires flexibility to use preferred pilots experienced in bear capture.

Information Interests

- Composition of population segments at seasonal feeding concentrations on salmon streams – gender, age, species.
- Mitigation possibilities to minimize road impacts to plan effective mitigation measures.
- Temporal use of streams.

- Genetic relatedness of bears – differential reproductive fitness, which bears are most productive?
- Range of movements
 - Do bears move between the coastal and the mine areas?
 - Are there areas that limit movements, such as bottlenecks, pinch points?
 - Where do bears currently cross the proposed road alignment?
- Bear displacement potential at the mine? – loss of denning habitat?
- What alternatives are being considered – the US Corps of Engineers looks at all alternatives equally to prepare for an EIS. Most alternatives would be located in the same general area and would be covered within a single study area encompassing the proposed access corridor.

Study logistics/specifics

- Expect loss of 40–60% GPS collars within several months.
- GPS collars are more susceptible to breakage and technical failure than are VHF collars.
- Female bears provide more useful information on population productivity and they break fewer collars than do males.
- Drop-off collars avoid problems of constricting the bears' necks as they grow.
- New ear tag transmitters may be worth considering – but have limited range.
- If using line transect methods to survey bear population, it requires viewing pre-leaf emergence and does not represent bear presence at the time of year when fish are present.
- GPS telemetry gives more accurate location “hits” than does VHF or satellite telemetry, but telemetry studies typically collar fewer bears due to higher cost/collar.
- Three types of GPS collars: (a) Store-on-board – must retrieve the collar to access the stored data, (b) Store-on-Board with Argos uplink – sends some data via satellite relay but must still retrieve collar to get all data, (c) Download data from fly-over (allows some data analysis earlier on, but transmission of data is limited by band width).
- Even with GPS collars, regular flights are needed to keep an eye on the bears to know where to retrieve the collars with the stored-on-board information.
- Satellite relay uses up the battery quickly.
- Expect \$1,800–\$2,500 cost per bear for capture and collaring operation (helicopter, drugs, VHF collar).
- Some animals will leave the study area.