

## **Appendix B**

TERRESTRIAL THREATENED and ENDANGERED SPECIES MITIGATION PLAN  
for the  
PROPOSED REVETT ROCK CREEK MINE

This mitigation plan displays the specific items identified that are required to reduce, eliminate, or compensate for environmental consequences to species federally listed as threatened or endangered. It covers implementing alternative five as displayed in the final environmental impact statement and Record of Decision (2003) for the Rock Creek Mine project and supports requirements from the U.S. Fish and Wildlife Service (here after FWS) Biological Opinion. This mitigation plan will be implemented by the Revett Mining Company and appropriate state and federal agencies. Timing of completion of this plan is tied to three phases of mine activity (evaluation adit, construction, and operation with each requiring a letter from the Forest Service prior to proceeding).

This plan includes requirements for Revett to provide funding for a number of conservation measures that are needed long-term. Should future projects be proposed, that have adverse effects on grizzly bear in the Cabinet-Yaak ecosystem, funding for some of these measures could be required of the proponents, thus potentially changing the proportional funding required by Revett. Those items are marked with an asterisk (\*) at the end of the measure description.

**A. To reduce mortality risk (avoid incidental take) to Threatened and Endangered species Revett Mining Company will comply with the following, under the direction of the Forest:**

1. Develop a transportation plan designed to minimize mine related vehicular traffic, traveling between state highway 200 and the mill site, and minimize parking availability at the plant site. Busing employees to the mill site will be a part of the plan. Forest Service approval required. The plan will be in place prior to starting the evaluation adit.
2. NOT use salt when sanding during winter plowing operations to reduce attracting big game, which can result in vehicles killing them. That in turn could draw bald eagles, wolves and grizzly to the road corridor and increase mortality.
3. Daily remove vehicular killed deer and elk from road rights-of-way within the permit area and along roadways used for access or hauling ore (FDR 150, 150A and new roads built for the project). Road kills would be moved at least 50 feet beyond the right-of-way clearing or as far as necessary to be out of sight from the road. During construction and the first three years of full operation, the Revett Mining Company would monitor the number of big game animals killed on these roads and report findings annually. They would also monitor and report (within 24 hours) all grizzly bear, bald eagle, lynx, wolf and black bear mortalities within the permit area. If a T&E species mortality occurs, and the grizzly bear specialists or law enforcement officer feel it is necessary to avoid grizzly bear or other T&E species mortality, the Revett Mining Company would be required to haul the road kill to a dumping location approved by Montana Fish, Wildlife and Parks (MFWP).

4. Construct power lines following criteria outlined by Olendorff, Miller and Lehman (1981) to reduce potential for electrocution of bald eagles.
5. Fund a local MFWP grizzly bear management specialist (with focus on public information and education) position to aid in grizzly bear conservation for the life of the mine. Funding would be provided prior to starting the evaluation adit to cover the first 5 years. The position would be stationed in the lower Clark Fork valley. The purposes are to reduce mortality risk through (1) education of the public on the law and penalty for violation (illegal killing of T&E species); (2) education of hunters on bear identification to reduce accidental killing of grizzly and (3) educate the public on biological needs of the grizzly so that an understanding exists that reduces "social jeopardy" and 4) educates the public on storage of human and pet (animal) food in bear habitat to prevent and correct sanitation problems. The position description and an initial list of work items will be developed jointly by the agencies (including but not limited to Forest Service, FWS, MFWP) and Revett Mining Company representatives. The Forest Service will request review and advice from the FWS on the position description and list of work items. (\*)
6. Fund a local MFWP law enforcement position for the life of the mine. Funding would be provided prior to starting the evaluation adit to cover the first 5 years. The position would be stationed in the lower Clark Fork valley. The position description and an initial list of work items will be developed by the agencies (Forest Service and Montana Fish, Wildlife and Parks) and Revett representatives. The Forest Service will request review and advice from the FWS on the position description and list of work items. (\*)
7. Prior to construction of the evaluation adit Revett will:
  - a) In order to proceed with the evaluation adit, agree to defer the construction phase of the mine until at least six female grizzly bears have been augmented into the Cabinet Mountains portion of the Recovery Zone (south of Highway 2). Female grizzly bears placed in the Cabinet Mountains on or after 10/01/2005 count toward this requirement. As of 9/19/2006 two female bears have been placed in the Cabinets.
  - b) In coordination the Kootenai Forest and Montana Fish, Wildlife, and Parks (MFWP) fund and/or conduct an enhanced outreach and education program to build support and understanding for the conservation of the Cabinet-Yaak grizzly population. This would involve educational materials, public service announcements, newspaper ads, and billboards supporting grizzly conservation. Examples could be signs at entrance roads to all grizzly habitats on the national forest, education programs for schools and civic clubs, and offering a reward leading to arrest and conviction of people illegally killing grizzly bears in the Cabinet-Yaak ecosystem. (\*)
  - c) Coordinate with bear specialist to provide funding for bear resistant garbage containers for personal use, by all mine employees associated with the evaluation adit phase, who live in or near grizzly bear habitat.

8. Prior to starting the construction phase Revett will:

- a) Provide funding for a second bear specialist in Libby for life of mine, similar to position described in #5 above. Initial funding to cover first 5 years of the position provided prior to construction start-up. (\*)
- b) Coordinate with bear specialists and provide funding for bear-resistant garbage containers for personal use by all mine employees associated with the construction and operation phases who live in or near grizzly bear habitat.
- c) Provide funding for an additional 100 bear resistant garbage containers plus an additional 20 per year, after the first year of construction phase, for distribution to the community at large by the grizzly bear management specialists.
- d) Coordinate with bear specialists, FWS, and the Counties to prioritize and provide funding for fencing and electrification of garbage transfer stations in grizzly habitat in the Cabinet Yaak ecosystem. Revett will provide funding for and work with the FWS and Sanders County to make the Noxon Rock Creek garbage collection site bear resistant prior to start of evaluation and construction. (\*)
- e) Fund an initial 10 electric fencing kits for use at bear problem sites that can be installed by MFWP bear specialists, and then 2 replacements per year, for use as needed. (\*)
- f) Agree that all mortality reduction measures would be subject to modification based on adaptive management, where new information supports changes. Modifications would be reviewed and approved by the oversight committee.

The Forest shall ensure that the law enforcement and information and education positions (grizzly bear personnel) required in the revised mitigation plan comply with the following :

- a. Positions shall be located in the Clark Fork River side of the ecosystem.
- b. Grizzly bear personnel shall be new positions with Montana Fish Wildlife and Parks.
- c. Funding intended for the grizzly bear personnel positions will not be used to support already existing positions with Montana Fish Wildlife and Parks.
- d. Duties for the law enforcement position shall be designed at a State grade determined by MFWP (recommend at least a grade 14) and will be primarily directed at wildlife issues in the southern Cabinet Mountains of the CYE.
- e. Duties for the bear specialist positions shall be designed as a grizzly bear management specialist at a State grade determined by MFWP (recommend at least a grade 14) and will be specifically tied to bear activities in the southern Cabinet Mountains of the CYE.

- f. Grizzly bear personnel shall be fully-funded for the life of the mine through the reclamation period and including shut-down periods to provide for long-term consistency, the establishment of relationships with the resident public, familiarity with issues and potential problems in the area, and to address the large number of people who may remain in the area even in the event of temporary mine shut-downs.
  - g. Grizzly bear personnel will be operational, with all supportive equipment, vehicles and gear, prior to the letter to proceed on the evaluation audit.
  - h. Establish and maintain (through coordination with the three grizzly bear personnel: 2 specialists and 1 LEO) a mandatory reporting system to ensure that the Revett Mining Company and U.S. Forest Service employees are required to immediately report any black bear or grizzly bear incidents, observations or mortalities to both grizzly bear personnel to ensure that pre-emptive management, hazing, or removal of food attractants would occur to avoid further risks of habituation, mortality or displacement of grizzly bears. The reporting system would also be coordinated with the MFWP grizzly bear management specialist in Libby and would provide a mechanism to collect reliable information from the public on such incidents, although such reporting could not be required.
7. Use bear-resistant containers to hold attractants at all Rock Creek facilities. Remove contents in a timely manner (weekly unless a problem develops or grizzly bear personnel recommend a more frequent schedule). Containers will be in place at each mine facility site prior to starting any work on each site.
  8. Avoid the use of clovers or other plants attractive to black or grizzly bears in the seed mix used on open roadways or any facility associated with the Rock Creek Mine (except as rehabilitation on closed roads or mitigation habitat where attracting bears would be encouraged).
  9. Prohibit employees from carrying firearms within the permit area, except for security officers and other designated personnel. Identify consequences for violations in the an employment contract so employees will be aware of consequences prior to beginning their employment.
  10. Prohibit employees from feeding wildlife (including dropping food stuffs from lunches etc.) within the permit area to avoid attracting bears or other wildlife into conflicts with people and encouraging habituation. Identify consequences for violations in an employment contract so employees will be aware of consequences prior to beginning their employment.
  11. Fund the acquisition of bear resistant garbage containers to be placed in all developed campgrounds within Bear Management Units 1, 2, 3, 4, 5, 6, 7, 8 and 9 (pack in/pack out sites will not require garbage containers). The Forest shall ensure that the Revett Mining Company provide bear resistant garbage receptacles for all U.S. Forest Service camp

grounds and sites where garbage facilities are normally provided within the Cabinet portion of the CYE recovery zone (in BMUs 1-9). This includes those in MS-3 habitat, which often serve as the greatest risk to habituate bears and increase risk of bear removal through defense of life or property incidents or management action. (\*)

12. Require mine employees (including all management staff) to attend training related to living and working in grizzly bear habitat prior to starting work and on an annual basis thereafter or as scheduled by the grizzly bear management personnel.

**B. To maintain habitat effectiveness for Threatened and Endangered species, the Revett Mining Company will, under the direction of the Forest:**

1. Secure or protect (through conservation easement, including road closures, or acquisition in fee with conveyance of fee or perpetual conservation easement to the Forest Service) from development (including but not limited to housing, motorized access) and use (timber harvest, grazing, mining) replacement habitat to compensate for acres lost by physical alterations, or acres with reduced habitat availability due to disturbance. Replacement acres for Alternative Five are: 2350. The "in kind" replacement acres must provide 2.61 early (6133.5 total), 1.61 late (3783.5 total) for an overall 2.11 habitat unit value (4958.5 total overall HUs). Replacement habitat will be provided using the following schedule:

Activity Area	Replacement Acres	Timing
Evaluation Adit	53	Prior to Eval. Adit
Tailings & AF	806	Prior to Construction
Mill & AF	248	Prior to Construction
Ventilation Adit	10	Prior to Construction
New Roads	102	Prior to Construction
Existing Roads (Reconstruction)	565	Prior to Construction
Existing Roads (Increased Influence)	566	Prior to Operations
<b>Total Alternative 5</b>	<b>2350</b>	<b>Prior to Operations</b>

AF = Associated Features

This schedule will have all replacement habitat (except ventilation adit) in place prior to starting full operations (end of year 5). Replacement habitat for the ventilation adit will be in place prior to its construction, if the adit becomes necessary.

Either fee title or conservation easements are acceptable. Conservation easements will be in perpetuity and transferred to the Forest Service. If fee lands are retained in private (non-Forest Service ownership) a conservation easement protecting the land in perpetuity must be conveyed to the Forest Service. Fee title lands may be considered for donation or land exchange with the Forest Service. Costs of processing land exchanges, and preparing and accepting conservation easement by the Forest Service for these acres will be funded by the Revett Mining Company. Land exchanges would be for equal valued lands as determined by a federal land appraisal. Any exchange must be beneficial to the Forest Service. First choice

for replacement habitat is within the disturbed BMUs (4,5,6). If adequate replacement acres are not available in those BMUs then acres may be found in other BMUs (1, 2, 7 & 8) within the Cabinet Mountains. See the Replacement Habitat Assessment for acceptable lands to consider **(Not available to public until replacement habitat mitigation completed)**.

The FWS will be consulted with and asked advice on the mitigation acres and associated conservation easements as they relate to the requirements included in the Biological Opinion on the Rock Creek Mine, at an early stage in the acquisition negotiations. Forest Service will have final approval of mitigation acres and associated conservation easements prior to closing and recording.

The Forest shall ensure that the 2350 acres of mitigation properties be managed for grizzly bear habitat in perpetuity. Properties acquired in fee by the Revett Mining Company must either be transferred to the U.S. Forest Service or must be protected by perpetual conservation easement transferred to the U.S. Forest Service. Easement properties acquired by the Revett Mining Company must be transferred to the U.S. Forest Service. The 2350 acres of mitigation properties must meet the following requirements:

a) The FWS shall be requested to advise the Forest Service if it believes the proposed mitigation properties meet one or more of the following:

- i restores or improves bear security habitat (HE and core) in the Southern Cabinet Mountains, particularly in the constricted north-south grizzly bear movement corridor;
- ii improves habitat conditions related to established access standards (open motorized route density, total motorized route density) in BMUs 4,5, and 6,
- iii reduces existing threats of development, food attractants or mortality risks in the Southern Cabinets,
- iv reduces potential threats of development, food attractants or mortality risks in the Southern Cabinets,
- v protect seasonally important habitats, with an primary emphasis on spring, and secondary emphasis on fall habitats
- vi would maintain or increase MS-1 habitat (including the potential of acquiring and converting MS-3 properties or lands adjacent to the CYE recovery zone that have high mortality risks to MS-1 if those risks could be eliminated under Federal ownership).

b) Fee-title properties or transfers (trades) of NFS lands must meet standards,

requirements and legal processes for Federal acquisition or trade, including, but not limited to:

- i approval by the Office of General Counsel,
- ii be a Warranty Deed conveyance
- iii comply with Department of Justice standards,
- iv be free of hazardous materials, or develop an agreement among MOU signers as to appropriate remedy prior to acquisition
- v include all surface and sub-surface rights including rights-of-ways, mineral claims, and/or other easements, unless otherwise advised by the FWS
- vi be acquired in priority order. Lower priority acquisitions may be allowed, after approval of the Forest Service and when consistent with advice from the FWS to ensure that such a property would contribute to meeting the requirements of the biological opinion.
- vii meet fair market appraised value, according to U.S. Forest Service appraisal processes with the allowance that Revett Mining Company could contribute additional funds to facilitate unequal appraised value trades, as approved by the Management Plan. Advanced approval by the Forest Service, after consultation with the FWS regarding the ability of the proposed lands to meet the requirements of the biological opinion, is required.
- viii be acquired and recorded prior to the letter to proceed on the associated phase of the mine, with total acquisitions completed prior to the letter to proceed on the construction phase of the mine.

c) Conservation easements must include language approved in the Management Plan and meet standards, requirements and legal processes for Federal acquisition or trade, including, but not limited to:

- i approval by the Office of General Counsel,
- ii have the conservation easement be attached to the Warranty Deed
- iii comply with Department of Justice standards,
- iv be free of hazardous materials, or develop an agreement among MOU signers as to appropriate remedy prior to acquisition



- v Include all surface and sub-surface rights including rights-of-ways, mineral claims, and/or other easements, unless otherwise advised by the FWS
- vi be acquired in priority order. Lower priority acquisitions may be allowed, when consistent with advice from the FWS to ensure that such a property would contribute to avoiding jeopardy.
- vii meet fair market appraised value, according to U.S. Forest Service appraisal processes with the allowance that the Revett Mining Company could contribute additional funds to facilitate unequal appraised value trades, as approved by the Management Plan if the affected parcels are consistent with advice from the FWS as being important to avoid jeopardy
- viii be acquired and recorded prior to the letter to proceed on the associated phase of the mine, with all mitigation habitat acquired and recorded prior to the letter to proceed on the construction phase of the mine, excepting the mitigation habitat that may be necessary in the event the ventilation adit is required. Mitigation habitat for the ventilation adit would be acquired prior to the letter to proceed on development of the ventilation adit, should it be necessary.

The Forest shall implement access management improvements on lands acquired in the revised mitigation plan. The FWS requires specific mitigation properties to be acquired to improve habitat security, core area, total motorized route density and open motorized route density and will assess other areas prior to acquisition to ensure these lands will be sufficient to avoid jeopardizing the CYE grizzly bear population. These specific areas will be withheld from public disclosure due to their sensitive nature until acquisitions have been finalized.

The FWS agrees to work with the Forest in determining how road management associated with that property can improve access standards, with the goal of managing BMU 4,5 and 6 above levels in the Access Ammendment FEIS (March 2002). The FWS believes that 35 years of 24 hour disturbances as expected with Rock Creek Mine necessitate access management at a conservative level while the disturbance is ongoing. The acquisition of mitigation habitat may provide opportunities to manage access management at these levels in BMU s 4,5, and/or 6. Should mitigation property be acquired that would enable access management at these levels, the FWS expects that the Forest will provide the bears using BMU's 4,5 and 6 the optimum level of access management to reduce displacement and mortality risks during the life of the mine.

2. Fund habitat enhancement, commensurate with loss of habitat effectiveness. Enhancements include, but are not limited to, prescribed fire to restore whitebark pine, road closures and obliterations. Enhancements are preferred in the affected BMUs, however if opportunities are not available, then work may be done in BMUs in the southern portion of the Cabinet Mountains. Generally enhancements would occur in relation to replacement habitat acres.

Enhancements associated with replacement acres will occur in a timely manner as agreed to by the agencies.

BMU	% H.E. Change	Acres H.E. Mitigation
4	+ 1.0	0
5	- 1.1	348
6	- 0.3	136

**C. To reduce mortality risk, maintain habitat effectiveness, reduce incidental take and avoid jeopardy for Threatened and Endangered species the Kootenai National Forest, with Revett Mining Company funds, will:**

1. Close the following roads prior to the start of construction phase (see maps):

Road Number	Road Name	Closure Miles	Closure Period	Closure Method
2285	Orr Creek	1.61	Yearlong	Barrier
2741X	unnamed	0.18	Yearlong	Barrier
2741A	unnamed	0.51	Yearlong	Barrier
150	Rock Creek	2.92	Yearlong	Gate *

\* 2.5 miles gated (south end), 0.42 miles obliterated (north end) - see map

2. Implement a mandatory food storage order for Bear Management Units 4, 5 and 6 prior to allowing the Revett Mining Company to start the evaluation adit, and implement same order throughout the CYE within 5 years of evaluation adit construction.
3. Monitor use on the Rock Lake and St Paul Lake trails to assure use levels do not exceed "high use" as defined by the IGBC. Monitoring visitor use on these trails would begin within 3 years of ROD. Methods used to monitor will be determined by a technical team led by the Forest Service. A recreational use management plan will be developed to assure high use does not occur. The plan will be implemented when monitoring indicates high use has occurred during one bear season. The plan will be prepared within 3 years of the start of the evaluation adit and must be signed by the involved agencies (Forest Service, FWS).
4. In coordination with the FWS the Forest Service will prioritize lands for conservation easement or acquisition in key linkage areas identified by research and monitoring along Highway 2 between the Cabinets and the Yaak.
5. The Forest Service will coordinate with the FWS and MFWP on release sites for augmentation of grizzly bears on National Forest lands.

6. Prior to the start of the construction phase Revett will: Provide funding for bear monitoring in the area along Highway 2 between the Cabinets and the Yaak. The linkage identification work would involve 3 years of monitoring movements of grizzly and black bears along the highway to identify movement patterns and key movement sites. Funding would cover 10 GPS collars, collar rebuilds each year for 3 years, salary for one seasonal worker for 6 month per year for 3 years and salary for one GIS technician for 6 months per year for 3 years. (\*)

**D. To address habitat constriction that reduces the potential to achieve CYE grizzly bear recovery goals (by impacting individuals in the Cabinet Mountains) and to avoid Jeopardy, Revett Mining Company will:**

1. Secure or protect (through conservation easement, including road closures) or acquisition in fee with conveyance of fee or perpetual conservation easement to the Forest Service from development (including but not limited to housing, motorized access) and use (timber harvest, grazing, mining) 100 acres of replacement habitat that will enhance the north to south habitat corridor in the Cabinet Mountains. These lands are in addition to those identified under mitigation item B-1. All acres of replacement habitat for the constriction impact will be secured prior to starting the evaluation adit. See the Corridor Replacement Habitat Assessment for acceptable lands to consider **(Not available to public until corridor replacement habitat mitigation completed)** Fee title lands within the corridor would be placed in public ownership either through donation or land exchange. Costs of processing land exchanges, and preparing and accepting conservation easement by the Forest Service for these acres will be funded by the Revett Mining Company. Land exchanges would be for equal valued lands as determined by a federal land appraisal. Any exchange must be beneficial to the Forest Service. All land interest conveyed to the Forest Service must be acceptable and approved by the Office of General Counsel. Fee title land must be conveyed by Warranty Deed in accordance with Department of Justice standards. All property, or interest in property, shall be inspected for hazardous substances in accordance with law, regulation and policy. If hazardous substance are found an agreement needs to be reached on removal and remedial action.

The Forest shall ensure that, the 100 acres of mitigation habitat required to enhance the north-south corridor in the Cabinet Mountains:

- a. the fee title or perpetual conservation easement to the 100 acres of mitigation property, be acquired by or transferred to the U.S. Forest Service;
- b. include the specific properties identified by the FWS to avoid jeopardy (which will be released to the public when acquisition has been completed and recorded);
- c. the U.S. Forest Service will request that the FWS advise the agency as to whether the proposed acres meet the requirements of the biological opinion, and once confirmed, will be acquired and recorded prior to the letter to proceed on the evaluation adit;

- d. be managed as grizzly bear security habitat (core) throughout the life of the mine, including the reclamation period and any temporary or extended shutdown periods, and thereafter managed in a manner consistent with grizzly bear conservation requirements;
- e. maintain or improve existing baseline core requirements (or other goals affiliated with Alternative E of the FEIS for Access Amendment on the Forest, Lolo and Panhandle National Forests, USDA 2002b); and
- f. have any habitat enhancement activities needed to improve the mitigation properties, such as road closures or restoration, be planned and funded prior to the letter to proceed on the associated phase of the mine. Implementation will occur as soon as feasible (e.g. upon completion of any required NEPA process).

**E. To assure compliance with the T&E species mitigation plan, and effectiveness of the management plan the Forest Service or Revett Mining Company will:**

1. Prior to the Evaluation adit,
  - a) Revett will establish a trust fund and/or post a bond, to cover the mitigation plan implementation costs. The amount in the fund or posted in a bond will be commensurate with projected work and associated required mitigation items. The oversight committee will determine the amount of trust fund deposits, to be made in five year increments over the life of the mine.
  - b) Forest Service will lead a stakeholders information annual meeting. Stakeholders may include, but not limited to state and federal agency, county commissioners, mining company, local citizen, and NGO group representatives. The objectives of the meetings are to review a) management objectives, b) implementation of mitigation measures and c) monitoring and research results.
  - c) Forest Service would agree to adopt management actions in response to new information from monitoring to assure that on going management meets the objectives for grizzly bears in the Cabinet-Yaak ecosystem.
2. Participate in the development of and be a signer on a Memorandum of Understanding (MOU) that

The Forest shall develop an M.O.U. with FWP, the Revett Mining Company and other parties deemed appropriate by the Forest. The MOU must be completed prior to the Forest issuing the Revett Mining Company the letter to proceed with the evaluation adit. The MOU shall establish roles, responsibilities and time lines of an Oversight Committee comprised of members of the Forest, Montana Department of Fish, Wildlife and Parks, and other parties deemed appropriate by the parties named. The FWS shall be an ex-officio, non-voting member of the Oversight Committee, with only advisory responsibilities.

The Oversight Committee shall be responsible for the development of a Comprehensive Grizzly Bear Management Plan and its implementation. The Comprehensive Grizzly Bear Management

Plan shall focus on the Cabinet portion of the CYE and would fully include all provisions of the Forest's mitigation plan for grizzly bears, except where superceded by the FWS's Biological Opinion. It would also include provisions for adaptive management. The plan would be developed in detail by the parties to assure that human access to grizzly bear habitat, grizzly bear habitat quality, grizzly bear mortality, and habitat fragmentation issues shall be addressed to the extent that jeopardy would be avoided. Advice and comments on the plan from the FWS shall be requested and fully considered, including advice on whether the plan would meet the requirements of the biological opinion.

The Oversight Committee, led by the Forest, shall over the 35-year life of the mine:

- a) assume responsibility for coordinating various aspects of the Management Plan;
- b) assume responsibility for maintaining effective communication among all Committee members, stake holders, and interested public;
- c) integrate the principles of adaptive management; collect, disseminate where needed, and review new information on grizzly bears, the results of implementation of the Comprehensive Grizzly Bear Management Plan over time, and other information related to CYE grizzly bears. If information or relevant data indicate appropriate, ensure the needed analysis and development of recommendations for changes or additions to the mitigation plan over the 35 year life of the mine, if such action is needed to ensure the proposed action is not likely to jeopardize the CYE grizzly bear population. The FWS would be asked to review proposed revisions to the Comprehensive Grizzly Bear Management Plan under appropriate section 7 provisions, if required.

The FWS shall be an advisor in the development of the MOU and subsequent Comprehensive Grizzly Bear Management Plan, and the Forest Service will request that the FWS advise, in writing, that the plan would meet the requirements of the biological opinion.

The MOU shall be completed prior to the letter to proceed on the evaluation adit and require the Forest to:

- 1) Ensure the Management Plan is completed prior to the construction phase of the mine.
- 2) Establish time frames for mitigation and implementation of other management to occur prior to the letter to proceed on the phase of the mine associated with that mitigation or management activity.
- 3) Ensure adequate funding, from the Revett Mining Company, to implement the revised mitigation plan according to the time frames.
- 4) Comply with legal guidelines or processes in as timely manner as possible in order to meet the mitigation plan and/or Comprehensive Grizzly Bear Management Plan implementation schedule.

5) Ensure that the FWS is consulted on the mitigation properties and the Comprehensive Grizzly Bear Management Plan and the FWS is requested to advise the Forest Service if the properties and the Plan meet the requirements in the biological opinion. All mitigation properties not specifically mentioned shall have undergone all necessary procedures for procurement including recordation, prior to the letter to proceed on the associated phase of the mine.

6) Establish language and legal procedures to ensure that mitigation properties acquired through fee title, land transfer or conservation easement:

- a. are perpetual;
- b. meet federal policies and regulations regarding such realty actions;
- c. have the FWS advise whether they would meet the biological opinion requirements;
- d. would be implemented and recorded in advance of the phase of the mine with which they are associated;
- e. would increase or at least maintain a no net loss of MS-1 CYE habitat;
- f. would be adequately funded such that enforcement of easement terms is assured;
- g. would be selected on a priority basis with biologically justifiable rationale and the FWS advice that they meet the requirements included in the biological opinion;
- h. would ensure management in support of grizzly bear survival and recovery if in public ownership.

The Comprehensive Grizzly Bear Management Plan shall include the measures in the mitigation plan, except where the mitigation plan has been superceded by the FWS's Biological Opinion. In addition, processes shall be established to ensure that access management, prevention of habituation, educational opportunities, reporting and monitoring, enforcement of easements, and management actions are being adequately implemented. Further, the Comprehensive Grizzly Bear Management Plan will establish processes to revise management, access, education or habitat enhancement strategies as new research or policies, such as revised IGBC guidelines.

3. Contribute funding to support monitoring of bear movements and population status in the Southern Cabinet Mountains to confirm the effectiveness of mitigation measures implemented to provide a secure north to south movement corridor. The Forest shall ensure that adequate funding, provided by the Revett Mining Company, is available to monitor bear movements and use of the Southern Cabinet Mountains to confirm the effective implementation of mitigation measures. Information gained would be useful in determining whether the mitigation plan is working as intended. If not, the information would help in developing new management strategies that would be incorporated in the Biological Opinion through appropriate ammendments. Funding would supplement ongoing research and monitoring activities in the CYE, would be conducted or coordinated by the FWS's grizzly bear researcher in Libby or his equivalent and would focus on grizzly bears in the Cabinet Mountains. Funding would include money for the following (but not limited to): trapping, hair sampling and analysis, radio collars, flight time, monitoring native and augmented grizzly bears, and data analysis, including all equipment and support materials needed for such monitoring. The Forest shall ensure that funding, provided by the Revett Mining Company, is available on an annual basis, two months in advance of the fiscal year (October) of the year it is to be used for the

life of the mine. Details of the monitoring activities and budget would be outlined in the Management Plan. Funding would be provided prior to the letter to proceed on the evaluation adit and would continue throughout the life of the mine through the reclamation phase. (\*)

**APPENDIX C (data from Kasworm et al. in litt. 2006a)**

**Table 1. (DRAFT 10/4/06) Known grizzly bear mortality in or near the Cabinet-Yaak recovery zone and the Yahk grizzly bear population unit in British Columbia, 1949-05 (from Kasworm et al. in litt. 2006a).**

YEAR	LOCATION	TOTAL	SEX / AGE	MORTALITY CAUSE
1949	COPPER CR. MT	1	ADULT FEMALE	HUMAN, HUNTER KILL
1950	SQUAW CR. MT	1	SUBADULT	UNKNOWN
1951	PETE CR. MT	1	ADULT MALE	HUMAN, MANAGEMENT REMOVAL
1951	PAPOOSE CR. MT	2	SUBADULTS	UNKNOWN
1951	GOAT CR. MT	1	SUBADULT MALE	UNKNOWN
1952	FELIX CR. MT	6	2 ADULT FEMALES, 4 YEARLINGS	HUMAN, MANAGEMENT REMOVAL
1953	OBRIEN CR. MT	1	SUBADULT MALE	HUMAN, HUNTER KILL
1953	KENELTY MT. MT	1	UNKNOWN	HUMAN, HUNTER KILL
1953	20-ODD MT. MT	1	UNKNOWN	HUMAN, HUNTER KILL
1953	BURNT CR. MT	1	UNKNOWN	HUMAN, HUNTER KILL
1953	17-MILE CR. MT	1	UNKNOWN	HUMAN, HUNTER KILL
1954	N F BULL R. MT	1	UNKNOWN	HUMAN, HUNTER KILL
1954	S F BULL R. MT	1	UNKNOWN	HUMAN, HUNTER KILL
1954	CEDAR LK. MT	1	UNKNOWN	HUMAN, HUNTER KILL
1954	CEDAR LK. MT	1	UNKNOWN	HUMAN, HUNTER KILL
1954	TAYLOR PK. MT	1	UNKNOWN	HUMAN, HUNTER KILL
1954	SILVERBUTTE CR. MT	1	UNKNOWN	HUMAN, HUNTER KILL
1954	SILVERBOW CR. MT	1	ADULT FEMALE	HUMAN, HUNTER KILL
1955	WOLF CR. MT	1	ADULT MALE	HUMAN, MANAGEMENT REMOVAL
1955	MT HEADLEY. MT	1	SUBADULT	HUMAN, MANAGEMENT REMOVAL
1955	BAREE LK. MT	1	ADULT MALE	UNKNOWN
1955	BAREE LK. MT	1	ADULT FEMALE	UNKNOWN
1955	BEAR CR. MT	1	SUBADULT MALE	HUMAN, HUNTER KILL
1958	SQUAW CR. MT	1	ADULT FEMALE	HUMAN, MANAGEMENT REMOVAL
1959	E F ROCK CR. MT	2	ADULT FEMALE, 1 CUB	HUMAN, HUNTER KILL
1959	W F THOMPSON R. MT	4	ADULT FEMALE, 3 CUBS	UNKNOWN
1959	CLIFF CR. MT	1	UNKNOWN	UNKNOWN
1960	PROSPECT CR. MT	2	ADULT FEMALE, 1 CUB	UNKNOWN
1964	GRAVES CR. MT	2	SUBADULTS	UNKNOWN
1964	WANLESS LK. MT	3	SUBADULTS (ADULT WOUNDED)	UNKNOWN
1965	SNOWSHOE CR. MT	2	SUBADULTS	UNKNOWN
1965	PINKHAM CR. MT	1	UNKNOWN	UNKNOWN
1967	SOPHIE LK. MT	1	UNKNOWN	UNKNOWN
1968	BEAR CR. MT	1	ADULT FEMALE	HUMAN, ILLEGAL KILL
1968	GRANITE CR. MT	1	SUBADULT MALE	HUMAN, MANAGEMENT REMOVAL
1969	PRISCILLA PK. MT	1	ADULT FEMALE	UNKNOWN
1970	THOMPSON R. MT	1	UNKNOWN	UNKNOWN
1970	CAMERON CR. MT	1	SUBADULT MALE	UNKNOWN
1970	SQUAW CR. MT	2	ADULT FEMALE, SUBADULT FEMALE	HUMAN, MANAGEMENT REMOVAL
1971	MURR CR. MT	1	ADULT FEMALE	UNKNOWN
1972	ROCK CR. MT	1	SUBADULT	HUMAN, MISTAKEN IDENTITY (Black Bear)
1974	SWAMP CR. MT	1	ADULT MALE	HUMAN, HUNTER KILL
1977	RABBIT CR. MT	1	ADULT MALE	HUMAN, DEFENSE OF LIFE BY HUNTER
1978	MOYIE LAKE. BC	1	SUBADULT MALE	HUMAN, MANAGEMENT
1982	GROUSE. ID	1	ADULT MALE	HUMAN, ILLEGAL KILL
1984	HARVEY CR. ID	1	UNKNOWN	HUMAN, MISTAKEN IDENTITY (Black Bear)
1985	LYONS CR. MT	1	ADULT MALE	HUMAN, DEFENSE OF LIFE BY HUNTER
1986	BURNT CR. MT	1	CUB	UNKNOWN (NATURAL)
1987	FLATTAIL CR. MT	1	FEMALE CUB	HUMAN, MISTAKEN IDENTITY (EIK)
1988	LEWISBY CR. BC	1	ADULT MALE	HUMAN, HUNTER KILL (BC)
1988	N F 17-MILE CR. MT	1	ADULT FEMALE	HUMAN, DEFENSE OF LIFE BY HUNTER
1989	BURNT CR. MT	1	SUBADULT FEMALE	HUMAN, RESEARCH TRAP (Predation)
1990	POVERTY CR. MT	1	SUBADULT MALE	HUMAN, ILLEGAL
1992	TRAIL CR. MT	1	ADULT FEMALE	UNKNOWN
1993	LIBBY CR. MT	2	ADULT FEMALE AND CUB	UNKNOWN (NATURAL)
1994	JIM CR. BC	1	SUBADULT MALE	HUMAN, MANAGEMENT
1994	SOUTHWEST CRANBROOK. BC	3	2 FEMALES AND 1 MALE	HUMAN, MANAGEMENT
1995	RYAN CR. BC	1	ADULT MALE	HUMAN, MANAGEMENT REMOVAL
1996	DODGE CR. MT	1	SUBADULT MALE	HUMAN, UNDER INVESTIGATION



YEAR	LOCATION	TOTAL	SEX / AGE	MORTALITY CAUSE
1996	GOLD CR. BC	1	ADULT MALE	HUMAN, UNDER INVESTIGATION
1997	LIBBY CR. MT	1	ADULT MALE	HUMAN, ILLEGAL
1997	PLUMBOB CR. BC	1	MALE	HUMAN, MANAGEMENT
1997	WARDNER. BC	1	ADULT FEMALE	HUMAN, MANAGEMENT
1997	MAYOOK. CR. BC	1	SUBADULT MALE	HUMAN, ILLEGAL KILL
1999	17 MILE CR. MT	3	ADULT FEMALE, 2 CUBS	NATURAL MORTALITY (Predation)
1999	W FK YAHK R. BC	1	SUBADULT FEMALE	HUMAN, DEFENSE OF LIFE BY HUNTER
1999	E FK YAAK R. MT	1	ADULT MALE	HUMAN, MANAGEMENT REMOVAL
2000	HAWKINS CR. BC	2	2 CUBS	UNKNOWN (NATURAL)
2000	FOWLER CR. MT	1	1 CUB	UNKNOWN (NATURAL)
2000	PETE CR. MT	1	SUBADULT FEMALE	HUMAN, UNDER INVESTIGATION
2001	COLD CR. BC	2	2 CUBS	UNKNOWN (NATURAL)
2001	SPREAD CR. MT	1	SUBADULT FEMALE	HUMAN, MISTAKEN IDENTITY (Black Bear)
2001	ELK CR. MT	1	ADULT FEMALE	HUMAN, TRAIN COLLISION
2002	MARTEN CR. MT	1	SUBADULT FEMALE	NATURAL
2002	PORCUPINE CR. MT	1	SUBADULT FEMALE	HUMAN, UNDER INVESTIGATION (Illegal)
2002	YAAK R. MT	4	ADULT FEMALE, 3 CUBS	HUMAN, ILLEGAL
2002	BLOOM CR. BC	1	UNKNOWN	HUMAN, BLACK BEAR HOUND HUNTERS
2002	KOOTENAY R. BC	1	FEMALE	HUMAN, DEFENSE OF LIFE
2004	WEST FORT STEELE. BC	1	MALE	HUMAN, DEFENSE OF LIFE AT DUMP
2004	JIM CR. BC	1	ADULT MALE	HUMAN, MISTAKEN IDENTITY
2004	NEWGATE. BC	1	ADULT FEMALE	HUMAN, MANAGEMENT REMOVAL
2005	RUSSELL CR. BC	1	ADULT MALE	HUMAN, HUNTER KILL (BC)
2005	GOVERNMENT CR. MT	1	SUBADULT FEMALE	HUMAN, TRAIN COLLISION
2005	PIPE CR. MT	1	SUBADULT FEMALE	HUMAN, ILLEGAL
2005	YAAK R. MT	1	SUBADULT MALE	HUMAN, ILLEGAL

Table 2. (DRAFT 10/4/06) Credible grizzly bear sightings, credible female with young sightings, and known human caused mortality by bear management unit (BMU) or area, 2005 (from Kasworm et al. in litt. 2006a).

BMU or Area	2005 Credible Grizzly Bear Sightings	2005 Female with Cub sightings (Unduplicated)	2005 Sightings of Females with Yearlings or 2-year-olds <sup>2</sup>	2005 Human Caused Mortality
3	1	0	0	0
4	1	0	0	1
5	6	1	2	0
6	5	0	4	0
10	4	0	0	0
11	4	0	0	1
12	3	0	0	0
13	1	0	0	0
14	1	0	0	0
15	5	0	0	0
16	1	0	0	1
17	2	0	2	0
20	1	0	0	0
British Columbia <sup>1</sup>	2	0	1	0
Cabinet Face <sup>1</sup>	2	0	0	0
Tobacco <sup>1</sup>	8	0	2	0
West Kootenai <sup>1</sup>	3	0	0	0
2005 TOTAL	50	1	11	3

<sup>1</sup> Areas are outside of Cabinet-Yaak recovery zone.

<sup>2</sup> Sightings may duplicate the same animal in different locations

Table 3. (DRAFT 10/4/06) Annual Cabinet-Yaak recovery zone (excluding Canada) grizzly bear minimum unduplicated counts of females with cubs and known human-caused mortality, 1988-2005 (from Kasworm et al. in litt. 2006a).

YEAR	ANNUAL FWC'S	ANNUAL HUMAN CAUSED ADULT FEMALE MORTALITY	ANNUAL HUMAN CAUSED ALL FEMALE MORTALITY	ANNUAL HUMAN CAUSED TOTAL MORTALITY	4% TOTAL HUMAN CAUSED MORTALITY LIMIT <sup>1</sup>	30% ALL FEMALE HUMAN CAUSED MORTALITY LIMIT <sup>1</sup>	TOTAL HUMAN CAUSED MORTALITY 6 YEAR AVERAGE	FEMALE HUMAN CAUSED MORTALITY 6 YEAR AVERAGE
1988	1	1	1	1	0	0		
1989	0	0	1	1	0	0		
1990	1	0	0	1	0	0		
1991	1	0	0	0	0	0		
1992	1	0	0	0	0	0		
1993	2	0	0	0	0.9	0.3	0.5	0.3
1994	1	0	0	0	0.9	0.3	0.3	0.2
1995	1	0	0	0	0.9	0.3	0.2	0
1996	1	0	0	1	0.7	0.2	0.2	0
1997	3	0	0	1	1.2	0.4	0.3	0
1998	0	0	0	0	0.9	0.3	0.3	0
1999	0	0	0	1	0.7	0.2	0.5	0
2000	2	0	1	1	0.5	0.1	0.7	0.2
2001	1	1	2	2	0.5	0.1	1.0	0.5
2002	4	1	4	5	1.2	0.4	1.7	1.2
2003	2	0	0	0	1.2	0.4	1.5	1.2
2004	1	0	0	0	1.4	0.4	1.5	1.2
2005	1	0	2	3	0.9	0.3	1.8	1.5

<sup>1</sup> Presently grizzly bear numbers are so small in this ecosystem that the mortality goal shall be zero known human-caused mortalities.

Table 4. (DRAFT 10/4/06) Status of the Cabinet-Yaak recovery zone during 2000-2005 in relation to the demographic recovery targets from the grizzly bear recovery plan (USFWS 1993) (from Kasworm et al. in litt. 2006a).

Recovery Criteria	Target	2000-2005
Females w/cubs (6-yr avg)	6.0	1.8 (11/6)
Human Caused Mortality limit (4% of minimum estimate)	0.9	1.8 (6 yr avg)
Female Human Caused mortality limit (30% of total mortality)	0.3	1.5 (6 yr avg)
Distribution of females w/young	18 of 22	12 of 22

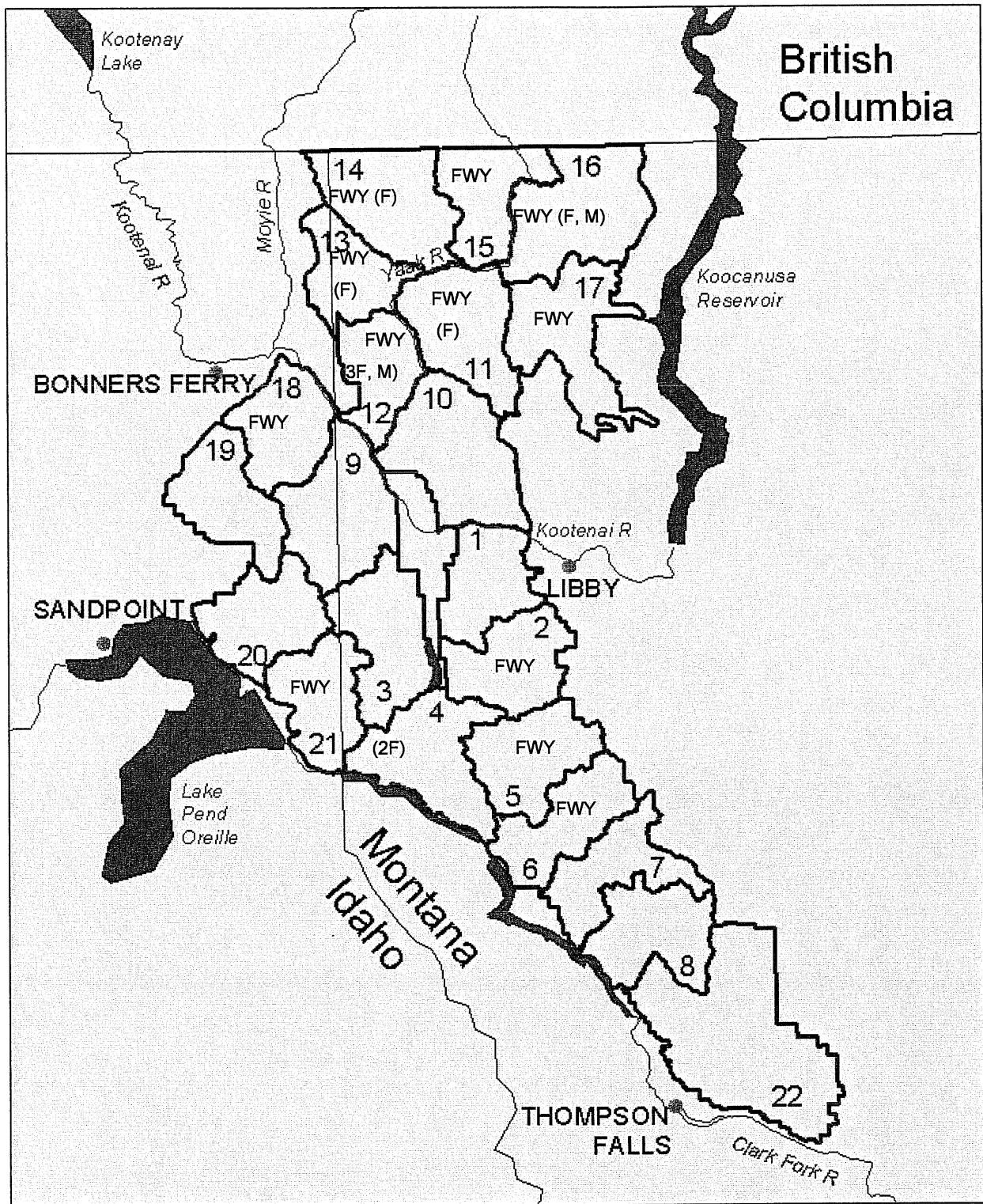


Figure 1. (DRAFT 10/4/06) Female with young occupancy and mortality by Bear Management Units (BMUs) within the Cabinet-Yaak recovery zone 2000-2005. (FWY indicates occupancy of a female with young and the sex of any mortality is indicated within parentheses).

Table 5. (DRAFT 10/4/06) Credible observations of females with young in or within 10 miles of the Cabinet-Yaak recovery zone, 1988-2005. Observations from Canada shown in parentheses (from Kasworm et al. in litt. 2006a).

Year	Total credible sightings females with young	Unduplicated females with cubs	Unduplicated females with yearlings or 2-year-olds	Minimum probable adult females
1988	3	1	1	2
1989	13	0	3	3
1990	9	1	2	3
1991	4	1	1	2
1992	8	1	5	6
1993	6	2	1	3
1994	5	1	2	3
1995	8	1	2	3
1996	5	1	1	2
1997	14 (1)	3	4	7
1998	6 (1)	0	2 (1)	2 (1)
1999	2	0	2	2
2000	6 (1)	2 (1)	1	3 (1)
2001	5 (2)	1 (1)	3	4 (1)
2002	10 (1)	4 (1)	1	5 (1)
2003	11	2	4	6
2004	11	1	4	5
2005	9 (1)	1	4 (1)	5 (1)

Table 6. (DRAFT 10/4/06) Occupancy of bear management units by grizzly bear females with young in the Cabinet-Yaak recovery zone 1988-2005 (from Kasworm et al. in litt. 2006a).

BMU	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1 CEDAR	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
2 SNOWSHOE	No	No	Yes	No	No	No	No	No	No	Yes	No	No	No	No	Yes	Yes	Yes	No
3 SPAR	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
4 BULL	No	Yes	No	No	No	No	No	No	No	Yes	No	No	No	No	No	No	No	No
5 ST. PAUL	No	No	No	No	No	Yes	No	No	No	No	No	No	Yes	No	No	Yes	Yes	Yes
6 WANLESS	No	No	No	No	Yes	Yes	No	No	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes
7 SILVER BUTTE	No	Yes	No	No	No	No	No	No	No	Yes	No	No	No	No	No	No	No	No
8 VERMILION	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
9 CALLAHAN	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
10 PULPIT	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
11 RODERICK	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	No
12 NEWTON	No	No	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Yes	No	No	No
13 KENO	No	Yes	No	No	Yes	No	No	No	Yes	No	No	No	No	Yes	Yes	Yes	No	No
14 NORTHWEST PEAK	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	No	No	No	No	Yes	No	No	No
15 GARVER	No	Yes	Yes	No	No	No	Yes	Yes	No	Yes	Yes	Yes	No	No	Yes	No	No	No
16 EAST FORK YAAK	No	No	No	No	No	No	No	No	No	Yes	Yes	No	No	No	No	Yes	No	No
17 BIG CREEK	No	No	No	Yes	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes
18 BOULDER	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No
19 GROUSE	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
20 NORTH LIGHTNING	No	No	No	No	Yes	No	Yes	No	No	No	No	No	No	No	No	No	No	No
21 SCOTCHMAN	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	No	No
22 MT HEADLEY	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

## Cabinet-Yaak Females with Cubs

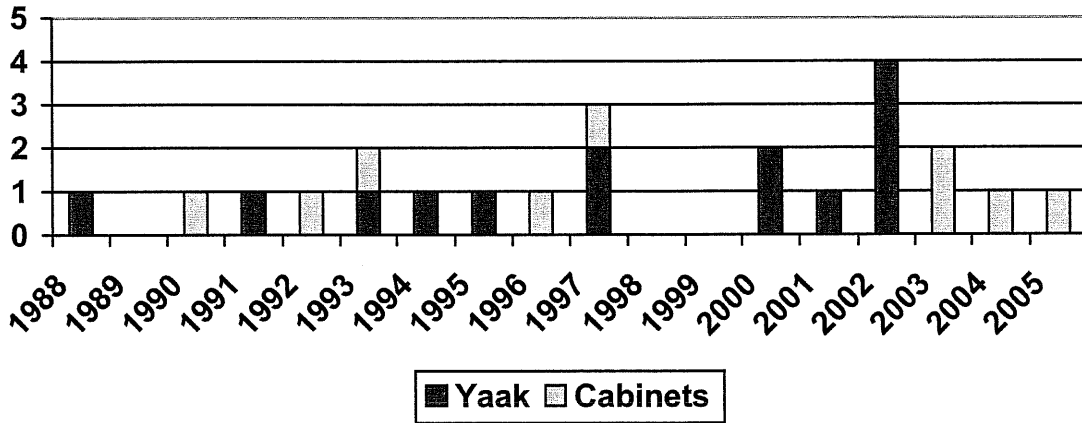


Figure 5. (DRAFT 10/4/06) Credible observations of females with cubs in or within 10 miles of the Cabinet-Yaak recovery zone (excluding Canada), 1988-05 (from Kasworm et al. in litt. 2006a.).

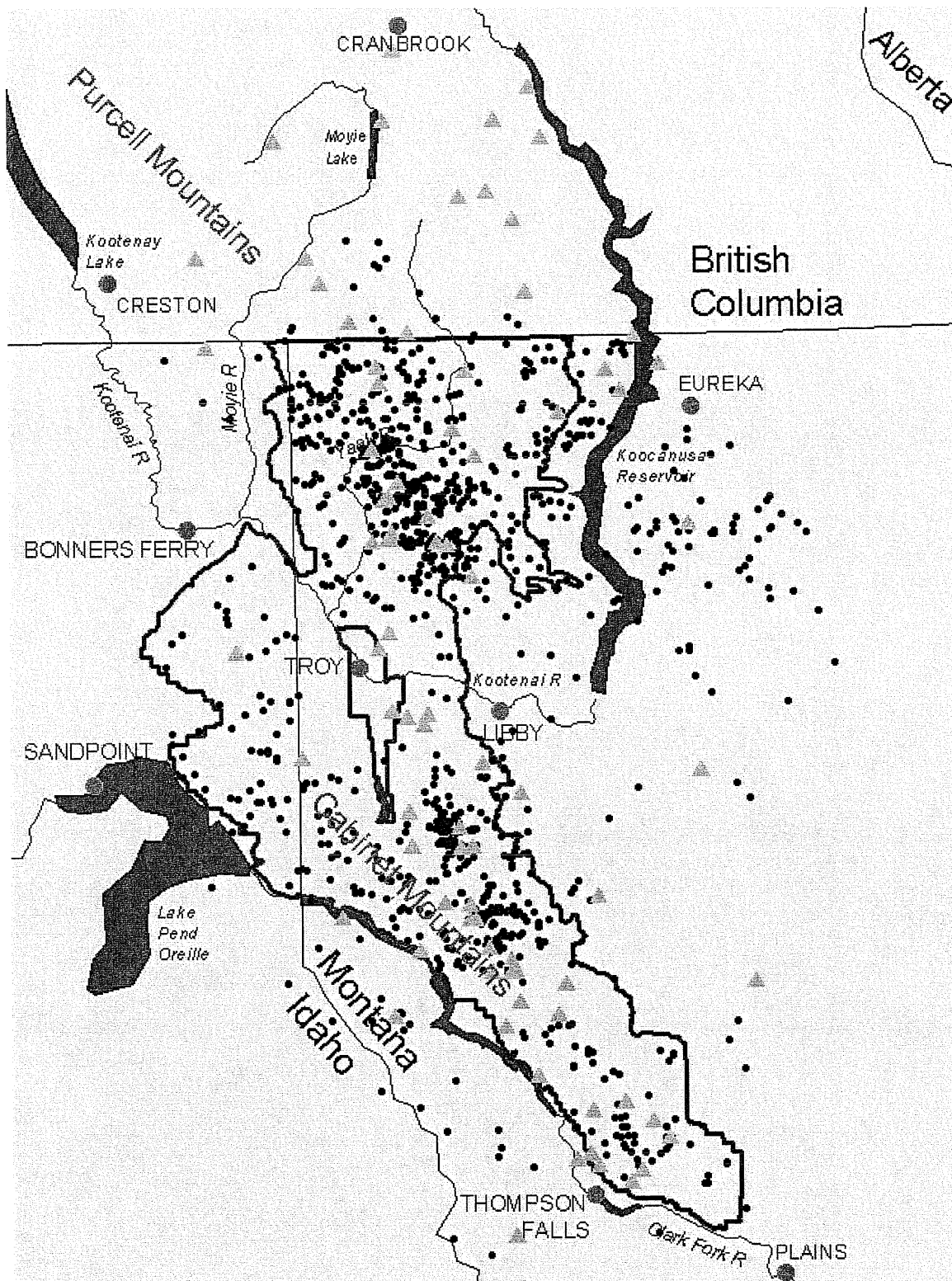


Figure 2. (DRAFT 10/4/06) Grizzly bear observations (1959-2005, circles) and mortality (1949-2005, triangles) in the Cabinet-Yaak recovery area. (from Kasworm et al. in litt. 2006).