CHAPTER 1

THE PURPOSE, NEED, AND PERMITTING PROCESS FOR THE ROCK CREEK PROJECT

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INTRODUCTION

This final Environmental Impact Statement (EIS) for the Rock Creek Project documents the analysis of possible environmental consequences of a proposed action and alternatives to the action. Sterling Mining Company's (Sterling) proposed action -- the construction and operation of the Rock Creek Project -- and four alternatives have been analyzed in this EIS. The purpose and need for the proposed action; the EIS process; the agencies' roles, responsibilities, and decisions; and public participation for the Rock Creek Project are described in this chapter. This EIS is contained in four volumes. Volume I includes the entire text of the EIS and the appendices are in Volume II. All substantive public comments on the draft and supplemental EISs and Agency responses are included in Volumes III and IV, respectively.

PURPOSE AND NEED FOR THE PROPOSED ACTION

Sterling has determined that the Rock Creek deposit is a valuable mineral deposit containing copper and silver. The 1872 Mining Law gives Sterling the right to mine this deposit and remove the copper and silver subject to regulatory laws. Sterling's purpose is to make a profit from the mining and milling of copper and silver from the Rock Creek deposit. These metals are used for a variety of purposes, ranging from industrial and medical purposes to personal items, such as jewelry.

Sterling proposes to construct, operate, and reclaim all facilities necessary to mine, remove, and transport economically mineable minerals from the Rock Creek deposit. The Rock Creek Project consists of developing a proposed underground copper/silver mine and mill/concentrator complex in northwestern Montana with a mine life of approximately 31 to 37 years. The project is proposed and would be operated by Sterling in Sanders County, Montana (see Figure 1-1). The Rock Creek ore deposit is located beneath and adjacent to the Cabinet Mountains Wilderness (CMW) in the Kaniksu National Forest (see Chapter 3, Geology, for more information on the size of the ore body). The Kaniksu National Forest (within Montana) is administered by the Kootenai National Forest (KNF). The mill and other facilities would also be located within the Kaniksu National Forest in Sanders County. Access to the proposed project site would be via Montana Highway 200, then approximately 6 miles up Rock Creek Road (Forest Development Road No. 150).

The project is proposed to be conducted in two stages: (1) the construction and development of the evaluation adit and (2) the development, construction, and operation of the mine and mill facilities. The evaluation adit would be driven for sampling the ore body and for exhaust ventilation during mining. The mineralized zone under the CMW would be accessed through twin adits driven from outside the wilderness area. A fourth adit may be constructed for ventilation intake with a portal in the CMW. The underground mining operation would use a room-and-pillar mining method where pillars of ore are left in place to support the rock above the room (see Chapter 2, Mine Plan). The milling process would use a conventional froth flotation process, producing a copper/silver-based concentrate that would be shipped to a smelter by rail. The ground rock material left after the copper and silver minerals are extracted is called "tailings;" tailings would be deposited in a tailings impoundment behind an embankment.

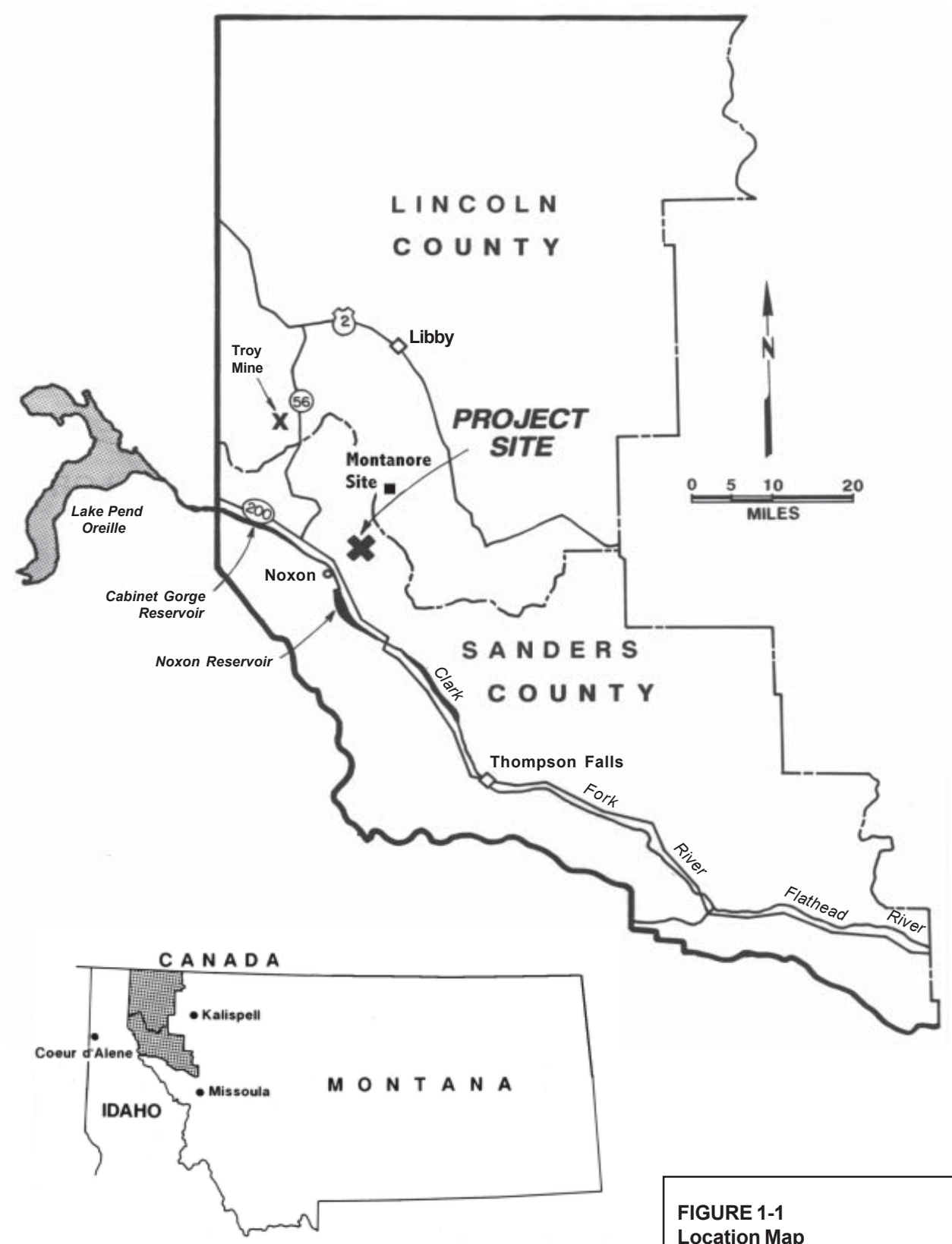

FIGURE 1-1
Location Map
Rock Creek Project
Sanders County, Montana

The 1872 General Mining Law, as amended, allows U.S. citizens the right to locate, explore, and develop mining claims on federal lands, such as national forests, that are open to mineral entry or, if closed to mineral entry, subject to valid existing rights. Additionally, the Alaska National Interest Lands Conservation Act guarantees access to private inholdings to secure the owner the reasonable use and enjoyment thereof..." The Multiple Use Mining Act of 1955 provides that mining claims may be used for "...prospecting, mining or processing, and uses reasonably incident thereto." Also, the Wilderness Act of 1964 provides and allows surface disturbing activities that are reasonably incident to mining or processing operations when valid rights have been found to exist. ASARCO, Incorporated (ASARCO) perfected its rights to the Rock Creek deposit within the CMW by patenting most of its lode mining claims. Sterling purchased all ASARCO mining claims and properties associated with the Rock Creek project and Troy mine on October 14, 1999. Sterling asserts its rights to mine the deposit and use federal lands for milling and storage purposes through both patented and unpatented mining claims as well as Sterling fee lands.

Copper/silver mineralization in the Rock Creek drainage within the Cabinet Mountains was discovered in 1963 by Bear Creek Mining Company during regional reconnaissance. In 1964, the Cabinet Mountains were made part of the national wilderness system. The Wilderness Act allowed mineral exploration through December 31, 1983. From 1966 to 1973, Bear Creek Mining Company drilled 10 holes to further verify the discovery. In 1973, ASARCO acquired the rights to the property as part of the lease agreement for the Troy Mine property. In the same year, a program of geological mapping, geochemical sampling, and drilling was started. The exploration program ended in 1983 after the drilling of 121 holes.

On January 1, 1984, the CMW was withdrawn from mineral entry under provisions of the Wilderness Act, subject to valid existing rights. The Wilderness Act requires the Forest Service to ensure that valid rights exist prior to approving mineral activities inside a congressionally-designated wilderness area. To establish valid existing rights, mining claimants must show they have made a discovery of a valuable mineral deposit on the claim(s) prior to the withdrawal date, and have maintained that discovery. In 1985, the Forest Service determined that ASARCO had established valid existing rights to the deposit. In 1989, the Bureau of Land Management (BLM) responded to ASARCO's patent application by issuing patents to 99 lode mining claims (1,686 acres within the CMW and 123 acres outside but adjacent to the CMW). ASARCO received a patent only to the minerals within the wilderness with the federal government retaining the surface rights. For those claims outside the wilderness, ASARCO received fee title (surface and mineral rights) (Sterling Mining Co. 2000). These patented mining claims contain the ore reserves Sterling has proposed to mine.

Sterling also controls at least 189 unpatented lode mining claims and/or mill sites and owns 754 acres of fee land within the proposed project area (see Chapter 2, Mine Plan). Unpatented mining claims are lands where primary title still rests in the United States, but the claimants may hold a real property interest that could entitle them to such things as:

- removal of valuable mineral deposits;
- siting of mill and waste facilities; and
- being granted title (patent) to the claims.

On May 6, 1987, ASARCO submitted a Plan of Operations/Application for a Hard Rock Operating Permit to the KNF and the former Montana Department of State Lands (DSL)[1, 2]. This multi-volume document was intended to meet the requirements of both agencies. The permit application contains environmental baseline information and operation and reclamation plans. Descriptions of proposed mining and milling methods, engineering designs, surface facilities, waste disposal practices, erosion and pollution control systems, reclamation methods, and environmental monitoring procedures are included. The application was initially deemed complete by KNF and DSL on November 17, 1989. In July 1992, ASARCO submitted an application to KNF and DSL for the development of an evaluation adit[3]. The exploration license application was determined to be complete on July 26, 1993. Both these documents are available for public review at the Montana Department of Environmental Quality (DEQ) and KNF offices and selected libraries in the project area. A decision on both the mining permit and exploration applications will be made after the EIS process is complete.

THE EIS PROCESS

KNF is required to comply with the National Environmental Policy Act (NEPA) regulations (40 CFR parts 1500 to 1508) to minimize adverse environmental impacts on National Forest surface resources through informed decision making. Compliance with all other applicable federal and state laws and regulations is also mandatory. Furthermore, KNF would take all practical measures to harmonize operations with scenic values and maintain and protect fisheries and wildlife habitat that may be affected by the operations. KNF must also ensure timely interim and final reclamation on National Forest System (NFS) lands.

DEQ must comply with the Montana Environmental Policy Act (MEPA) regulations (ARM 17.4.101 through 17.4.725). DEQ requires protection of air and water quality as well as successful interim and final reclamation of disturbed areas.

This final EIS presents the Agencies' analyses of environmental impacts under NEPA and MEPA regulations and guidelines. The Agencies will use these analyses to make final decisions concerning the approval of the operating permit and the plan of operations (see Table 1-1). Under NEPA and MEPA, KNF and DEQ are required to consider reasonable alternatives to a proposed project. The selected alternative will be in compliance with U.S. Army Corps of Engineers (COE) and U.S. Environmental Protection Agency's (EPA) regulations and guidelines (33 CFR, Appendix B, 40 CFR 230, 404 (b)(1) guidelines).

[1] The Reclamation Division of the Department of State Lands was merged with portions of the Department of Natural Resources and Conservation and portions of the Department of Health and Environmental Sciences on July 1, 1995, to create the Department of Environmental Quality (DEQ).

[2] The application has been transferred from ASARCO to Sterling (Sterling Mining Co. 2000a)

[3] In 1992, several years after submitting an application for a Hard Rock Operating Permit and proposing a plan of operations to the Forest Service, the applicant applied to DSL for an exploration license to access their ore body via an adit. The purpose of the adit is to evaluate the ore zones and structures, obtain rock mechanics data, and to obtain a bulk ore sample for metallurgical testing (ASARCO Incorporated 1992). Throughout the final EIS, the Agencies refer to this adit as the Sterling evaluation adit. The applicant for this adit has been transferred from ASARCO to Sterling.

TABLE 1-1
Permits, Licenses, and Approvals Required for the Rock Creek Project

Permit, License or Approval	Purpose
	Federal Agencies
	Kootenai National Forest
Approval of Plan of Operation (36 CFR 228A)	To allow Sterling to construct and operate a mine and related facilities on NFS lands. Approval incorporates management requirements to minimize or eliminate effects on other forest resources which include final design of facilities, and mitigation and monitoring plans as delineated in the ROD. Review of the proposed plans are coordinated with DEQ and other appropriate agencies. Approval of the Plan of Operations is contingent on the proponent completing the terms and conditions for approval as listed in the ROD.
Special Use Permit(s) (36 CFR 251)	To allow respective utility companies to construct and operate electric transmission/distribution and telephone lines and to allow Sterling to construct and maintain associated facilities such as a weather station or radio tower outside the designated project area on NFS lands.
Road Use Permit	To specify operation and maintenance responsibilities on National Forest roads not covered by plan of operations.
Mineral Material Permit	To allow Sterling to take borrow material from NFS lands outside mining claims or mill sites.
Timber Sale Contract	To allow Sterling to harvest commercial timber from the project area within NFS lands. Harvesting would be conducted to clear area for project facilities.
	U.S. Fish and Wildlife Service (USFWS)
Biological Opinion	To protect threatened and endangered species. Consultation with KNF.
404 Permit	To comment on the 404 Permit to prevent loss of, or damage to fish or wildlife resources.
	U.S. Army Corps of Engineers
404 Permit (Clean Water Act)	To control discharge of dredged or fill material into wetlands and non-wetland waters of the U.S. Reviewed by EPA, USFWS, DEQ.
	State and Local Agencies
	Department of Environmental Quality
Exploration License (Metal Mine Reclamation Act)	To allow exploratory activities including construction of an evaluation adit and testing of a bulk sample. Proposed activities must comply with state environmental standards and criteria. Approval may include stipulations for final designs and monitoring plans. A sufficient reclamation bond must be posted with the state prior to implementation of approved activities. Coordinate review and analysis with KNF.
State Hardrock Mine Operating Permit (Metal Mine Reclamation Act)	To allow mine development activities. Proposed activities must comply with state environmental standards and criteria. Approval may include stipulations for final design of facilities and monitoring plans. A sufficient reclamation bond must be posted with the state prior to operating permit issuance. Coordinate review and analysis with KNF.

TABLE 1-1 (Cont.)
Permits, Licenses, and Approvals Required for the Rock Creek Project

Permit, License or Approval	Purpose
Air Quality Permit (Clean Air Act)	To control particulate emissions of more than 25 tons per year.
MPDES Permit (Water Quality Act)	To establish effluent limits, treatment standards, and other requirements for point source discharges to state waters including ground water. Discharges to surface waters may not violate downstream states water quality standards. Coordinate with EPA and State of Idaho.
Storm Water Discharge Permit (Water Quality Act)	To control discharge of storm water from the mine site (may be merged with MPDES permit).
Public Water Supply and Sewer Permit	To allow construction of public water supply and sewer system and to protect public health.
Water Quality Waiver of Turbidity (3A Waiver)	To allow for short-term increases in surface water turbidity during construction. Request may be forwarded from MFWP.
401 Certification (Federal Clean Water Act)	To ensure that any activity that requires a federal license or permit (such as the 404(b)(1) permit from COE) complies with Montana water quality standards.
Hazardous Waste and Solid Waste Registration	To ensure safe transport of hazardous materials to and from the site and proper disposal of solid wastes.
	Department and Board of Natural Resources and Conservation
Water Rights Permit (Montana Water Use Act)	To allow beneficial use of state waters obtained through any surface water diversion over 35 gallons per minute (gpm) or through ground water withdrawal exceeding 100 gpm.
Timber Harvest	To ensure best management practices are used during timber harvest on private and state lands.
Burning Permit	To regulate slash burning from land clearing during construction.
	State Historic Preservation Office
Cultural Resource Clearance (Section 106 Review)	To ensure appropriate protection of cultural resources (archeological and historic) coordinated with KNF.
	Montana Fish, Wildlife and Parks (MFWP) **Green Mountain Conservation District**
310 Permit (Natural Streambed and Land Preservation Act)	To allow construction activities by non-government entities within the mean high water line of a perennial stream or river. MFWP works with conservation districts to review permit and determine if a 3A waiver from DEQ is needed.
	Department of Transportation
Business Approach Permit	To allow safe connection of roads to state highways.

TABLE 1-1 (Cont.)
Permits, Licenses, and Approvals Required for the Rock Creek Project.

Permit, License or Approval	Purpose
	Hard Rock Impact Board/Sanders County
Fiscal Impact Plan (Hard Rock Mining Impact Act)	To mitigate fiscal impacts on local government services.
	Sanders County Weed District
Noxious Weed Management Plan	To prevent propagation of noxious weeds.
Pipeline Easement Approval	**Avista Corporation (formerly Washington Water Power)** To allow construction of water discharge pipeline and makeup water well that would be located within the Federal Energy Regulatory Commission (FERC) Project boundary for Cabinet Gorge. Avista Corporation would consult state and federal agencies as well as the Clark Fork Management Committee.

Procedures governing the EIS process for the Agencies are defined in administrative rules implementing MEPA and NEPA. These laws require that if any action taken by the State of Montana or the federal government may "significantly affect the quality of the human environment,"[4] an EIS must be prepared. The final EIS was written to meet the requirements of these statutes and the administrative rules and regulations implementing these laws.

The final EIS merges the contents of the draft and supplemental EISs issued in October 1995 and January 1998, respectively. Substantive public comments on both documents and Agency responses are included as part of the EIS (Volumes III and IV) as required in 40 CFR 1503.4(b) and ARM 17.4.619(3).

The KNF and DEQ will use the MEPA/NEPA process to select an alternative or portions of various alternatives and mitigations as assessed in the final EIS to develop each agencys' Record of Decision (ROD) (see Agency Decisions).

AGENCY ROLES AND RESPONSIBILITIES

Two "lead" agencies have been designated for this project: KNF and DEQ (the Agencies). A single EIS for the Rock Creek Project is being prepared to provide a coordinated and comprehensive analysis of potential environmental impacts. The Agencies required for the Rock Creek Project, various other permits, licenses, or approvals from DEQ and other agencies also would be necessary (see Table 1-1) prior to construction and operation of the proposed project. The roles and responsibilities of the agencies with primary environmental permitting and regulatory responsibilities are discussed in the following sections.

[4] As defined in 40 CFR 1508.27 and MCA 17.7.608 (see Appendix A).

Lead Agencies

Kootenai National Forest

A majority of the proposed Rock Creek Project facilities and most of the ore deposit are on or under lands administered by KNF. The Organic Administration Act authorizes the Secretary of Agriculture to regulate occupancy and use of NFS lands for the protection and management of forest resources. Regulations for mining and reclamation activities on NFS lands are contained in 36 CFR Part 228, Subpart A (36 CFR 228A). These regulations require submittal and approval of a proposed plan of operations for mining related activities that could result in significant disturbance to surface resources. Forest Service Part 228, Subpart A, regulations apply to operations conducted under the U.S. mining laws as they affect surface resources on National Forest System lands under the jurisdiction of the Secretary of Agriculture. Operations are defined as "[a]ll functions, work, and activities in conjunction with prospecting, exploration, development, mining or processing of mineral resources and all uses reasonably incident thereto, including roads and other means of access on lands subject to the regulations in this part, regardless of whether said operations take place on or off mining claims" 36 CFR 228.3(a). Regulations for special uses on NFS lands are contained in 36 CFR 251.

These regulations require that a special use application be filed for uses such as constructing and operating a transmission line. Both sets of regulations require that an applicant describe the proposed operation, environmental protection measures, and reclamation plans. Several additional permits associated with a variety of uses are required.

The KNF Supervisor will issue a decision on Sterling's proposal in a Record of Decision (ROD) (see Agency Decisions). This decision will be appealable. Sterling may appeal the decision pursuant to 36 CFR Part 215 or 251. Other parties may appeal the decision pursuant to 36 CFR Part 215.

KNF would share responsibility for monitoring and inspecting the Rock Creek Project with DEQ. KNF also has authority to ensure that impacts to surface resources on NFS lands are minimized by modifications to an approved plan of operations. Both KNF and DEQ require a reclamation bond to ensure that the lands involved with the mining operation are reclaimed in accordance with the approved reclamation plan. (DEQ's bonding is discussed in a subsequent section.) The bond is held jointly by DEQ and KNF and in joint ownership with KNF to ensure compliance with the state permit and Forest Service-approved plan of operations. KNF may require an additional bond if it determines that the bond held by DEQ is inadequate to reclaim NFS lands or would be administratively unavailable to meet Forest Service requirements.

KNF is required by the National Forest Management Act to maintain viable populations of sensitive species and to conduct biological evaluations to analyze impacts on them (see Biodiversity, Chapter 3 and 4). If the biological evaluation identifies any unmitigated, significant effects the Forest Supervisor will need to make a decision to allow or disallow the impact(s). If the significant effects would result in a loss of species viability or create a significant trend toward Federal listing, the Forest Supervisor could not issue the permits that would allow the project to proceed (Forest Service Manual 2672.32-4).

KNF is required by the Endangered Species Act to ensure that any actions it approves will not jeopardize the continued existence of a threatened or endangered species or result in the destruction or adverse modification of critical habitat. KNF has prepared a biological assessment that evaluates the potential effect on threatened or endangered species that may be present in the area. The evaluation includes any measures KNF believes are needed to minimize or compensate for effects on the species.

The biological assessment was presented in Appendix B in the draft and supplemental EISs. A final biological assessment based on the preferred alternative is presented in Appendix B of this final EIS. The final biological assessment was submitted to the USFWS (July 31, 1998, amended for lynx April 3, 2000) as part of a formal consultation process.

The Biological Opinion (BO) of the USFWS was finalized on December 19, 2000. It contains a Reasonable and Prudent Alternative with Reasonable and Prudent Measures with Terms and Conditions that the KNF must either implement or require Sterling to implement in order to avoid jeopardizing the continued existence of the grizzly bear in the lower Cabinet-Yaak Ecosystem. These terms and conditions have been added to Alternative V (see Chapter 2, Alternative V description and the revised mitigation plan attached to the BA in Appendix B for more details) and the KNF has determined that additional bonding in the form of a trust fund would be required to ensure that sufficient funds are available to implement these mitigations (see Table 1-2). Sterling would be required to deposit money into the trust fund prior to construction of the evaluation adit (1st year of the project) and then additional money during the 5th and 15th year of the project. An inflation factor would be applied to the funds to determine actual dollars at the time of the deposits. The KNF is authorized to require bonding in addition to the reclamation bond calculated by DEQ if it determines that the bond amount is insufficient according to the USFS or if bonding is necessary for items that DEQ is not authorized to bond for (36 CFR 228.13). As mitigations are completed, fund could be withdrawn from the trust fund and returned to Sterling, or applied to the next required incremental deposit.

The BO also contains Reasonable and Prudent Measures with Terms and Conditions that the KNF must either implement or require Sterling to implement in order to protect bull trout in Rock Creek and the Clark Fork River. These requirements have also been incorporated into Alternative V and have been added to the Aquatics and Fisheries Mitigation and Monitoring Plans (see Alternative V description in Chapter 2 for more details). Additional bonding is not required for these items.

TABLE 1-2
Estimate for the Terrestrial Threatened and Endangered Species Mitigation Trust Fund Account of the Preferred Alternative (Alternative V)

Mitigation Item	Cost [1]	Trust Fund Deposit		
		Years 1-5	Years 5-15	Years 15-30
Information and Education Position	$2,582,500.00	$392,500.00	$730,000.00	$1,460,000.00
Law Enforcement Position	$2,582,500.00	$392,500.00	$730,000.00	$1,460,000.00
Habitat Enhancement	$121,000.00	$121,000.00	$0.00	$0.00
Road Closures	$14,250.00	$14,250.00	$0.00	$0.00
Trail Monitoring	$185,250.00	$27,750.00	$52,500.00	$105,000.00
Bear-proof Garbage Cans for Food Storage Order	$6,400.00	$3,200.00	$3,200.00	$0.00
Monitoring	$18,600.00	$18,600.00	$0.00	$0.00
Trust Fund Administration	$50,000.00	$12,500.00	$12,500.00	$25,000.00
Grizzly Bear Radio Telemetry Monitoring	$2,100,000.00	$300,000.00	$600,000.00	$1,200,000.00
TOTAL DEPOSIT	**$7,660,500.00**	**$1,282,300.00**	**$2,128,200.00**	**$4,250,000.00**

[1] Funds are shown in 2000 dollars

Kootenai National Forest Responsibilities to Federally Recognized Tribes. The following laws and executive orders outline the responsibilities that federal agencies have federally recognized to Tribes. The Confederated Salish and Kootenai Tribes and the Kootenai Tribe of Idaho have retained off-reservation treaty rights through the Hellgate Treaty of 1855.

- **Hellgate Treaty of 1855**

  The Flathead, Kootenai, and Upper Pend d'Orielles Indian Tribes reserved rights under the Hellgate Treaty of 1855 (July 16, 1855). These rights include the "right of taking fish at all usual and accustomed places, in common with citizens of the Territory, and of erecting temporary buildings for curing; together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land." The federal government has trust responsibilities to Tribes under a government-to-government relationship to ensure that the Tribes reserved rights are protected. Consultation with the Tribes in early phases of project planning helps the Forest Service meet their trust responsibilities.

- **National Historic Preservation Act of 1966 (NHPA) (P.L. 89-665, as amended, P.L. 91-423, P.L. 94-422, P.L.94-458 and P.L. 96-515), and Regulations 36 CFR Part 800 and 36 CFR 36 CFR Part 7**

  This act pertains only to tangible properties (buildings, structures, sites, or objects) which are important in history and prehistory. It requires agencies to consider the effects of undertakings on properties eligible to or listed in the National Register of Historic Places by following the regulatory process specified in 36CFR800.

  The portions of that act that relate specifically to coordination with Indian tribes were added in the 1992 amendments. These additions reflect the increased importance placed on Tribal relations. A section of the act directs state and Federal governments to assist in the establishment of preservation programs on Indian lands. In part, these sections include:

  Section 2 It shall be the policy of the Federal Government, in cooperation with other nations and in partnership with the State, local governments, Indian tribes, and private organizations and individuals to-

  > (2) provide leadership in the preservation of the prehistoric and historic resources of the United States and of the international community of nations and in the administration of the national preservation program.
  >
  > (6) assist State and local governments, Indian tribes and Native Hawaiian organizations and the National Trust for Historic Preservation in the United States to expand and accelerate their historic preservation programs and activities;

- **National Environmental Policy Act (NEPA) of 1969 (P.L .91-190) and Regulations 40 CFR 1500-1508**

  Federal agencies began to invite Indian tribes to participate in forest management projects and activities that may affect them.

- **National Forest Management Act of 1976 (P.L. 4-588)**

  Directs consultation and coordination of National Forest System planning with Indian tribes.

- **American Indian Religious Freedom Act of 1978 (AIRFA) (P.L.95-341 as amended, P.L. 103-344)**

  AIRFA states that "...it shall be the policy of the United States to protect and preserve for American Indians their inherent right for freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to site, use and possession of sacred objects, and the freedom to worship through ceremonies and traditional rites".

Agencies must make a good faith effort to understand how Indian religious practices may come into conflict with other forest uses and consider any adverse impacts on these practices in their decision-making practices. The consideration of intangible, religious, ceremonial, or traditional cultural values and concerns which cannot be tied to specific cultural sites/properties could be considered under AIRFA.

- **Archaeological Resources Protection Act of 1979 (ARPA) (P.L. 96-95) and Regulations 43 CFR Part 7**

  Establishes a permit process for the management of cultural sites on Federal lands which provides for consultation with affected tribal governments.

- **Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) (P.L. 101-601, 25 U.S.C. 3001-3013) and Regulations 43 CFR Part 10**

  Addresses the rights of lineal descendants and members of Indian tribes, Alaska Native and native Hawaiian organizations to certain human remains and precisely defined cultural items. It covers items currently in Federal repositories as well as future discoveries. The law requires federal agencies and museums to provide an inventory and summary of human remains and associated funerary objects. The law also provides for criminal penalties in the illegal trafficking in Native American human remains and cultural items.

- **Interior Secretarial Order 3175 of 1993**

  Establishes responsibility of all agencies to carry out trust responsibilities of the Federal Government and assess the impacts of their actions on Indian trust resources. Requires consultation with tribes when impacts are identified.

- **Executive Order 12866 of 1993, Regulatory Planning and Review**

  Enhances planning and coordination with respect to both new and existing regulations. Makes process more accessible and open to the public. Agencies shall seek views of tribal officials before imposing regulatory requirements that might affect them.

- **Religious Freedom Restoration Act of 1993 (P.L. 103-141)**

  Established a higher standard for justifying government actions that may impact religious liberties

- **Executive Order 12898 of 1994, Environmental Justice in Minority Populations and Low-Income Populations**

  Directs Federal agencies to focus on the human health and environmental conditions in minority and low-income communities, especially in instances where decisions may adversely impact these populations.

- **1993 - Religious Freedom Restoration Act**

  Established a higher standard for justifying government actions that may impact religious liberties.

- **Executive Order 13007 of 1996, Indian Sacred Sites**

  Acknowledges the role of federal agencies to protect and preserve the religious practices and places of federally recognized tribes and enrolled tribal members. Requires federal agencies to consult with federally recognized tribes to learn of tribal concerns for sacred sites on public lands. Ensures access to religious places and avoidance of adverse effects to sacred sites in accordance with existing legislation.

- **Executive Order 13084 of 1998, Consultation and Coordination with Indian Tribal Governments**

  Provides direction regarding consultation and coordination with Indian Tribes relative to fee waivers. Calls upon agencies to use a flexible policy with tribes in cases where a proposed waivers are consistent with applicable Federal policy objectives. It directs agencies to grant waivers in areas where the agency has the discretion to do so, when a tribal government makes a request. When a request is denied, the agency must respond to the tribe in writing with the rationale for denial.

Montana Department of Environmental Quality[5]

Permitting and Compliance Division. DEQ administers the Montana Metal Mine Reclamation Act (Title 82, Chapter 4, Part 3, MCA), under which the applicant has applied for a mine operating permit (ASARCO Incorporated 1987). DEQ also administers the Montana Clean Air Act (75-2-101 et seq., MCA), the Montana Water Quality Act (75-5-101 et seq., MCA), the Montana Public Water Supply Act (75-6-101 et seq., MCA), the Montana Hazardous Waste Act (75-10-401 et seq., MCA), and the Solid Waste Management Act (75-10-201, et seq., MCA). In addition, DEQ provides 401 certification for the COE regarding Sterling's 404 permit application (see U.S. Army Corps of Engineers).

Hard Rock Operating Permit. The purpose of the Metal Mine Reclamation Act is to prevent land and surface water degradation by requiring lands disturbed by mining, whether they are federal, state, or private, to be stabilized and reclaimed. This act requires an approved operating permit for all mining activities on non-Indian lands that disturb more than 5 acres, or mine more than 36,500 tons of ore annually.

DEQ must decide whether to issue Sterling an operating permit, and if so, under what conditions (see Agency Decisions). The Director of the Department of Environmental Quality may make a decision to approve Sterling's permit application no sooner than 15 days following publication of the final EIS. If

[5] DEQ was created on July 1, 1995 and integrated portions of DSL, DHES, and DNRC that pertained to environmental regulatory management, permitting, enforcement, and protection.

the permit is approved, Sterling must then modify its operating plan to incorporate the approved permit requirements and stipulations.

A reclamation performance bond must be posted with DEQ before an operating permit may be issued (82-4-335, MCA). DEQ is authorized to bond mining operations under the Metal Mine Reclamation Act (82-4-338, MCA). The bond amount (established by DEQ and KNF) must be sufficient for the state to complete reclamation in case of default by Sterling. DEQ reclamation bonds include the cost of returning the site to comparable stability and utility, and other assurances that there would be no continuing impacts to the environment. Consequently, neutralization of chemicals or long-term water treatment are often a part of the bonding calculations. Bonding for water management and treatment is based on the volume of water that must be managed and/or treated, expected water quality, and the method to be used. The bond could be in the form of a trust fund or other mechanism to cover possible long-term facility maintenance and operation.

The amount of bond for reclamation is site specific. Calculations are based on the costs of reclaiming roads, parking lots, embankments, diversion channels, ponds, impoundments, and other facilities. Costs involve replacing topsoil on all disturbed areas. Costs for reclamation depend on the volume of material required for regrading, the distance the material must be moved, and volumes of and distances to move topsoil for proper placement. In addition, if any capping materials or other special handling or treatment are required as a part of the reclamation plan, those volumes and distances hauled are part of the calculation. Bond calculations also include the costs of revegetation, fertilization, repair and maintenance of reclaimed areas damaged by erosion and other acts of nature, temporary irrigation, demolition and removal of buildings and other structures, portal plugging, and restriction of access to the site. Bonding includes costs for yearly monitoring and laboratory testing as well as on-going active water treatment for as long as necessary after mine closure, and costs for reasonably foreseeable accidents. The bond must be submitted by the applicant prior to permit issuance. Bonds are calculated by the Agencies once an alternative has been approved. The calculation would then be on file and available for public review. Bonds are reviewed whenever a permit modification is approved and are re-evaluated at least every 5 years (ARM 17.24.141).

DEQ has made a preliminary estimate of the reclamation costs at the proposed Rock Creek mine based on comparisons with other mines of similar profile. The reclamation estimates are based on a conceptual level of design, and have been broken into two components: a surface reclamation estimate, and a water treatment component. For Alternatives II through IV, a preliminary cost for surface reclamation is estimated between $21 million and $30 million, with the majority of the cost being associated with the closure of the tailings facility. Costs for reclaiming the evaluation adit and associated appurtenances is estimated at between $1 million and $1.5 million. These figures will be refined once a detailed estimate is undertaken should a decision be made to permit the project. Table 1-3 contains a breakdown of the expected major reclamation cost centers.

TABLE 1-3
Estimated Reclamation Bond Liability

Item	Evaluation Adit Phase	Mine Construction and Operation Phase		
	Alternatives II-V	Company Proposal Alternative II	Alternatives III & IV	Alternative V
Direct Costs:				
Mill Site				
Item #1 Mill Demolition	N/A	$500,000	$500,000[2]	$500,000
Item #2 Infra-structure Removal	N/A	$150,000	$150,000	$150,000
Item #3 Waste Disposal	N/A	$100,000	$100,000	$100,000
Item #4 Site Regrading, Topsoil & Revegetation	N/A	$200,000	$250,000	$250,000
Item #5 Power Line Removal ($10,000/mi)	N/A	$60,000	$60,000	$60,000
Item #6 Miscellaneous	N/A	$100,000	$100,000	$100,000
Category Subtotal		***$1,110,000***	***$1,160,000***	***$1,160,000***
Portal Area				
Item #7 Portal Plugging[3]	$250,000	$1,000,000	$1,000,000	$1,000,000
Item #8 Portal Apron & Waste Dump Reclamation	$75,000	$300,000	$300,000	$300,000
Item #9 Infrastructure Removal	$125,000	$150,000	$150,000	$150,000
Item #10 Waste Disposal	$20,000	$100,000	$100,000	$100,000
Item #11 Miscellaneous	$25,000	$100,000	$100,000	$100,000
Category Subtotal	***$495,000***	***$1,650,000***	***$1,650,000***	***$1,650,000***
Tailings Impoundment/Tailing Paste Facility				
Item #12 Impoundment Dewatering[4]	N/A	Not Proposed	$2,000,000	N/A
Item #13 Embankment Regrading	N/A	$3,000,000	$3,000,000	$3,000,000
Item #14 Embankment Topsoil & Revegetation	N/A	$2,000,000	$2,000,000	$2,000,000
Item #15 Surface Water Controls	N/A	$750,000	$750,000	$750,000
Item #16 Paste Facility Demolition	N/A	N/A	N/A	N/A
Item #17 Paste Site Clean-up	N/A	N/A	N/A	N/A
Item #18 Pipeline Corridor Reclamation	N/A	$50,000	$50,000	$50,000
Item #19 Infrastructure Removal	N/A	$250,000	$250,000	$250,000
Item #20 Waste Disposal	N/A	$100,000	$100,000	$100,000
Item #21 Miscellaneous	N/A	$100,000	$100,000	$100,000
Category Subtotal		***$6,250,000***	***$9,750,000***	***$10,050,000***

TABLE 1-3
Estimated Reclamation Bond Liability (Cont.)

Item		Evaluation Adit Phase	Mine Construction and Operation Phase		
		Alternatives II-V	Company Proposal Alternative II	Alternatives III & IV	Alternative V
Water Treatment Facility					
Item #22 Treatment Facility Demolition		$50,000	$200,000	$200,000	$200,000
Item #23 Waste Disposal		$20,000	$100,000	$100,000	$100,000
Item #24 Diffuser Removal		$25,000	$25,000	$25,000	$25,000
Item #25 Site Regrading, Topsoil & Revegetation		$10,000	$50,000	$50,000	$50,000
Category Subtotal		$105,000	$375,000	$375,000	$375,000
Other					
Item #26 Interim Care and Maintenance					
Item #27 Monitoring and Reclamation Maintenance		$50,000	$500,000	$500,000	$500,000
Item #28 Mitigation Plan Implementation		N/A	N/A	$2,000,000	$2,000,000
Item #29 Site & Construction Management		$100,000	$1,500,000	$1,500,000	$1,500,000
Category Subtotal		***$450,000***	***$4,000,000***	***$6,000,000***	***$6,000,000***
COMBINED SUBTOTAL		***$1,050,000***	***$13,385,000***	***$18,935,000***	***$19,235,250***
Indirect Costs:					
Contingencies	*15%*	$157,500	*15%* $2,007,750	$2,840,250	$2,887,988
Mobilization	*5%*	$52,500	*5%* $669,250	$946,750	$962,663
Project Management, Design & Engineering	*5%*	$52,500	*5%* $669,250	$946,750	$962,663
Agency Administration	*15%*	$157,500	*15%* $2,007,750	$2,840,250	$2,887,988
Inflation[5]	*3%*	$63,945	*3%* $2,130,892	$3,014,452	$3,065,117
TOTAL SURFACE FACILITIES RECLAMATION BOND AMOUNT		***$1,533,945***	***$20,869,892***	***$29,523,452***	***$30,019,669***
WATER TREATMENT BOND					
Capital Costs:					
Design & Testing		N/A	$500,000	$500,000	$500,000
Facilities Construction		N/A	$3,200,000	$3,200,000	$3,200,000
Miscellaneous		N/A	$100,000	$100,000	$100,000
Category Subtotal			***$3,800,000***	***$3,800,000***	***$3,800,000***

TABLE 1-3
Estimated Reclamation Bond Liability (Cont.)

Item	Evaluation Adit Phase	Mine Construction and Operation Phase		
	Alternatives II-V	Company Proposal Alternative II	Alternatives III & IV	Alternative V
Annual Operating & Maintenance[6]				
Passive Biotreatment (Alts. II, III, and IV)/Biotreatment (Alt. V)	N/A	$750,000	$750,000	$750,000
Ion Exchange (Alts. II, III, IV)/Reverse Osmosis Backup (Alt. V)	N/A	$175,000	$175,000	$175,000
Monitoring	N/A	$25,000	$25,000	$25,000
Miscellaneous	N/A	$250,000	$250,000	$250,000
Category Subtotal		***$1,200,000***	***$1,200,000***	***$1,200,000***
TOTAL WATER TREATMENT BOND AMOUNT[7]	**Year 1-10** **Year 1-100**	**$14,381,518** **$44,423,628**	**$14,381,518** **$44,423,628**	**$14,381,518** **$44,423,628**

Notes: N/A = not applicable (to this/these alternative(s)

1 All values based on a conceptual level of design (+/- 30%).
2 Mill site for Alts. III and IV different; demolition costs comparable.
3 Includes cost of closing air intake ventilation adit.
4 Company proposal does not include active dewatering.
5 Inflation for 2 years @ Evaluation Adit; 5 years @ Alternatives II-V.
6 Costs based on 750 gpm plant.
7 Present value

The above figures do not reflect the costs associated with water treatment. Based on the design put forth by Sterling, DEQ estimates the costs of running the Anoxic Biotreatment System and the Reverse Osmosis plant at approximately $14 million to $44 million. The lower end of the range projects water treatment for 10 years; the upper end of the estimate is for treatment over a 100-year period. The length of time required for water treatment is not known at this time. After 10 years, the water quality at the Troy Mine meets ground water standards and slightly exceeds surface water standards for a couple of parameters. The length of time to bond for water treatment will be decided by the Agencies should the mine be permitted. It is currently calculated for a 100-year time period. The costs are quoted as present values (discounted dollars), simply explained, this is the amount of money that must be put in a trust account on Day 1 of the mining operation so that it will generate sufficient interest income to pay for the daily operation of the plant into the future. It is assumed that inflation will be 3% per year and the account will earn 6% interest. The analysis was terminated after 100 years as 99.9% of the total costs to run the plant in perpetuity are realized in the first 100 years when performing a discounted cash flow analysis.

Major changes in operating or reclamation plans would require prior approval by DEQ and KNF, and may require additional environmental impact analysis and bonding. DEQ and KNF would routinely conduct inspections of the Rock Creek Project to ensure compliance with approved plans. Monitoring data collected by Sterling would be evaluated and, if necessary, additional compliance activities would be implemented. Monitoring activities would be coordinated with other state and federal agencies. DEQ can issue notices of violation and levy civil penalties of up to $1,000 per day of violation to enforce its regulations (82-4-361, MCA) unless the violation created an imminent danger to the health and safety of the public or cause a significant environmental harm. In this case, the maximum penalty is $5,000 per day of violation.

Air Quality Permit. Any proposed project having estimated pollutant emissions (without emissions controls) exceeding 25 tons per year must obtain an air quality permit. The permit would specify air emissions limitations and monitoring requirements. The applicant must apply Best Available Control Technology to each emissions source, and must demonstrate that the project would not violate Montana or federal Ambient Air Quality Standards. A final determination for an air quality permit based on Alternative V is included in Appendix C. DEQ would conduct periodic inspections to ensure permit compliance. Violations of the Montana Clean Air Act may result in administrative or civil penalties of up to $10,000 per violation per day (75-2-401, and 75-2-413, MCA).

Water Quality Permits. The Montana Water Quality Act provides a framework for the classification of surface and ground water uses. It also establishes water quality standards as well as permit programs to control the discharge of pollutants into state waters. DEQ administers Montana Pollution Discharge Elimination System (MPDES) permitting including storm water permits. Mining operations must comply with Montana surface and ground water standards. The tailings facility, sewage treatment plant, and other facilities must be constructed and operated to prevent water discharge, seepage, drainage, infiltration, or flow that may degrade surface or ground waters outside of any approved mixing zones. A short-term exemption from surface water quality standards for turbidity may be required for construction of the powerline and access roads at stream crossings (3A waiver). DEQ has responsibility for enforcement under the Water Quality Act. Enforcement actions may include administrative penalties up to $10,000 per day (75-5-613, MCA) or civil penalties of up to $25,000 per day of violation (75-5-631, MCA).

ASARCO submitted a revised water management plan and MPDES permit application in March 1995 designed for Alternative IV as described in this EIS. ASARCO submitted another water management plan in January 1997 that was developed for Alternative V with paste deposition of the tailings as described in the supplemental EIS. The permit application requests coverage for two sources: a direct discharge to the Clark Fork and the discharge to ground water below the tailings paste facility. A draft discharge permit containing effluent limits and conditions, monitoring requirements, and a ground water mixing zone was released by DEQ in February 1996. The development of a new alternative in the supplement and subsequent changes in the water management plan for Alternative V along with review of public comments on the MPDES permit resulted in a revised discharge permit based on Alternative V. Storm water discharges were incorporated into the MPDES permit. This permit also must ensure that discharges to surface waters would not violate a downstream state's water quality standards, such as those for the State of Idaho. Discharge permits are issued for a period of up to 5 years and are renewable in 5-year cycles. The proposed MPDES permit fact sheet and statement of basis are in Appendix D.

Because of the design of the tailings facility and recovery well system, the original discharge permit specified a ground water mixing zone in accordance with Montana's mixing zone rules (ARM 17.30.501 et seq.). A mixing zone would also be required for the alternative using paste deposition of tailings. A mixing zone is an area of initial dilution where water quality standards may be exceeded subject to conditions imposed in the proposed MPDES permit as allowed. Except for carcinogens and pollutants with a bioconcentrating factor of greater than 300, nondegradation does not apply within a mixing zone. Mixing zones must be the smallest practicable size, have a minimum effect on water uses, and have definable boundaries.

Section 401 of the federal Clean Water Act (33 U.S.C. 1251 et seq.) requires that applicants for federal permits or licenses for activities that may result in a discharge to state waters obtain certification from the state. The 401 certification process ensures that discharges that otherwise do not require a state permit comply with applicable state water quality standards and that there would be no violation of state law if a federal permit or license was approved. In Montana, DEQ provides Section 401 certification pursuant to state rules (ARM 17.30.101 et seq.). DEQ may deny certification for a project if it would violate Montana water quality standards, based on DEQ analysis. DEQ may also certify, certify with conditions, or waive certification. Certifications may be appealed to the Board of Environmental Review, formerly the Board of Health and Environmental Sciences, within 30 days of final action by the department. Section 404 dredge and fill permits issued by COE require 401 certification. A joint public notice is issued by COE and DEQ.

Public Water Supply and Sewer Approval. DEQ is responsible for regulating public water supply and sewer systems that regularly serve at least 25 persons daily for a period of at least 60 calendar days a year. DEQ must approve plans and specifications for water supply wells as well as water systems or treatment systems and sewer systems. Operations for community public water supplies, wastewater treatment systems or sewer systems must be certified by DEQ. Administrative penalties are up to $500 per day of violation and civil penalties are up to $10,000 per day (75-6-109(6) and 75-6-114, MCA respectively).

Solid and Hazardous Waste Permits and Registrations. DEQ is responsible for reviewing the mine and powerline construction and operation plans to ensure implementation complies with solid and hazardous waste laws and regulations. Maximum penalties for hazardous waste violations are $10,000

per violation per day (75-10-417, MCA). Maximum penalties for solid waste violations are $1,000 per violation per day (75-10-228, MCA).

Other Federal Agencies Having Permit or Review Authority

U.S. Fish and Wildlife Service

USFWS has responsibilities under the Fish and Wildlife Coordination Act (1934), Endangered Species Act (1973), and Bald Eagle Protection Act (1940). Responsibilities under the Fish and Wildlife Coordination Act require federal agencies issuing permits (i.e. Corps of Engineers § 404 Permit) to consult with the Service to prevent the loss of or damage to fish and wildlife resources where "waters of any stream or other body of water are proposed...to be impounded, diverted...or otherwise controlled or modified." The Forest Service must prepare a biological assessment to comply with the Endangered Species Act. A biological assessment evaluates potential effects on threatened and endangered species that may be present in the project area. If the Forest Service determines that the project will require formal consultation because of adverse affects to listed species, the USFWS will render a BO. That opinion will state whether, in the view of USFWS, the action is likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or modification of critical habitat. If USFWS determines that the preferred alternative would jeopardize the continued existence of a species, it must offer a reasonable and prudent alternative that would, if implemented, preclude jeopardy. The USFWS has 135 days from initiation of formal consultation to render the BO. Formal consultation for both biological assessments developed for bull trout and terrestrial species relative to the proposed action was initiated on July 31, 1998 (see Appendix B). The BO is contained in Appendix E and was finalized on December 19, 2000.

U.S. Army Corps of Engineers

Tailings disposal and other mine facility construction activities affecting wetlands would constitute the disposal of dredged or fill materials into wetlands and non-wetland waters of the U.S. and would require a "404 permit" under Section 404 of the federal Clean Water Act. COE is the permitting authority for the discharge of dredged or fill materials into the wetlands and non-wetland waters of the U.S. (see Chapter 3, Wetlands and Non-Wetland Waters of the U.S.). ASARCO submitted a 404 permit application (see the Agencies' original evaluation in Appendix C in the draft EIS) to COE (ASARCO, Incorporated 1993) for its proposed project and has submitted an updated application and wetland mitigation plan for the Agencies' preferred alternative identified in the supplemental and final EISs. The updated 404(b)(1) evaluation is found in Appendix F of this document. The COE will document its 404 permit decision in its ROD after release of the final EIS.

COE and EPA have developed guidelines to evaluate impacts from dredged or fill disposal activities on wetlands and non-wetland waters of the U.S. (33 CFR Part 320 and 40 CFR Part 230) and to determine compliance with Section 404 of the Clean Water Act. The guidelines require analysis of "practicable" alternatives that would not require disposal of dredged or fill material in wetlands and non-wetland waters of the U.S., or that would result in less environmental damage. Under the guidelines, the term "practicable" means "available or capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." The practicable alternative analysis is provided in Section 2.1.1 of the Section 404(b)(1) Showing (Appendix F).

U.S. Environmental Protection Agency

EPA has oversight responsibility for federal Clean Water Act programs delegated to and administered by DEQ. EPA may also intervene to resolve interstate disputes where discharges of pollutants in an upstream state may affect water quality in a downstream state. EPA also reviews 404 dredge and fill permit applications and provides comments to COE. EPA has veto authority under the federal Clean Water Act for decisions made by COE on 404 permit applications. EPA also has responsibilities under NEPA and the federal Clean Air Act to cooperate in the preparation of EISs and to review draft EISs and federal actions potentially affecting the quality of the environment. EPA advises the lead agencies on the preparation of an EIS. EPA also evaluates the adequacy of information in the EIS, the overall environmental impact of the proposed action, and various alternatives. EPA rated the draft EIS as EO-2 meaning Environmental Objections - Insufficient Information (U.S. EPA 1995) and the supplemental EIS as EC-2 meaning Environmental Concerns - Insufficient Information (U.S. EPA 1998).

Other State and Local Agencies Having Permit or Review Authority

Montana Fish, Wildlife and Parks (MFWP)

As the lead agency for management of fisheries resources in Montana, MFWP also administers the use, enjoyment, and scientific study of fish. MFWP's approval and designation of a licensed collector as field supervisor would be required for monitoring, mitigation, and transplanting of fish within the project area.

Green Mountain Conservation District

Any mining disturbance occurring within the normal high water level of streams would require the approval of the Green Mountain Conservation District. This approval would constitute a "310 permit" under the Natural Streambed and Land Preservation Act (75-7-101 et seq., MCA). Reconstruction of road drainage structures, habitat improvements, new stream crossings, and creek diversions are examples of activities needing a 310 permit. Prior to granting approval, the District would consult with KNF and MFWP. MFWP would make a determination if a 3A waiver from DEQ would be required in conjunction with the 310 permit.

Montana Department of Natural Resources and Conservation (DNRC)

DNRC administers the Montana Water Use Act (85-2-101 et seq., MCA). A water rights permit is required by the Montana Water Use Act for any surface water diversion over 35 gallons per minute (gpm) or a ground water withdrawal exceeding 100 gpm. Because Sterling proposes to pump water from the Clark Fork alluvium, a water rights permit would be required.

Sterling must obtain a burning permit from the DNRC area office in order to burn slash or other material.

State Historic Preservation Office (SHPO)

Compliance with federal cultural resource protection laws is required because portions of the proposed project occur on NFS lands. Actions that are permitted, approved, or initiated by the Forest Service and that may affect cultural resources must comply with provisions of the National Historic Preservation Act (NHPA) of 1966, as amended, and as implemented by federal guidelines 36 CFR 800. Section 106 of the NHPA requires a federal agency to take into account the effects of the agency's undertaking on properties listed on, or eligible for listing on, the National Register of Historic Places (NRHP).

Before any federal undertaking begins, cultural resources eligible for listing on the NRHP must be identified and documented. Cultural resources recorded in the project area are evaluated in consultation with SHPO or the Federal Advisory Council on Historic Preservation (ACHP). Agreements reached between the Forest Service and the consulting parties on eligibility constitute a consensus, allowing the compliance process to proceed. If sites do not meet the criteria of eligibility for the NRHP, no further consideration of cultural resources is necessary and the project may proceed.

If a site meets any of these criteria, the Forest Service is required to determine the effect of the proposed action on the site. Once consulting parties agree on mitigation measures for eligible properties affected and the conditions or stipulations have been met, the project may proceed. During mine construction and operation, the Agencies would oversee compliance with historic preservation and monitoring plans.

Montana Department of Transportation (MDT)

MDT must review requests for an approach road (60-2-201, MCA). This code lists the criteria required to ensure a reasonably safe approach road for connection with the state highway system (pers. comm. Steve Herzog, Montana Department of Transportation, October 13, 1994).

Hard Rock Mining Impact Board/Sanders County

In 1981, the Montana legislature enacted the Hard Rock Mining Impact Act (90-6-301 et seq., MCA) to assist local governments in handling financial impacts caused by large-scale mineral development projects. The legislature recognized that 1) new mineral development projects may result in the need for local governments to provide additional services and facilities causing a fiscal burden for local taxpayers, before mine-related revenues become available, and 2) some local government units may lack jurisdiction to tax a new development. Therefore, the Hard Rock Mining Impact Board (part of the Montana Department of Commerce), oversees an established process for identifying and mitigating fiscal impacts to local governments. The Impact Plan process is described in 90-6-307, MCA. The Board also acts as "referee" in disputes between local governments and project developers.

A public hearing on the impact plan was held on September 22, 1997, in Sanders County where fiscal impacts are forecasted to be the most costly. Sanders County is the lead local governing body responsible for reviewing and commenting on the applicant's Hard Rock Mining Impact Plan for the Rock Creek Project. However, Lincoln County also reviewed and commented on the plan. An impact plan (ASARCO Incorporated 1997a) has been agreed to by the local governments.

The operating permit issued by DEQ is not valid until an impact mitigation plan has been approved by the Hard Rock Mining Impact Board. Sterling's impact mitigation plan identifies possible increased public sector costs associated with major mineral development actions. It also contains commitments to prepay taxes and make grants according to a specified time schedule and to accommodate identified capital and net operating costs to local government units that result from project development.

Sanders County Weed Board

The weed board administers the County Noxious Weed Control Act (7-22-2101 through 2153, MCA) for any land-disturbing activities within their jurisdiction. Sterling would be required to submit a weed management plan to Sanders County Weed Board for review and approval.

Avista Corporation (Avista)

Avista owns lands on which Sterling proposes to construct a discharge water line and makeup water well for the proposed Rock Creek Project. These lands are located within the FERC project boundary for the Cabinet Gorge Hydroelectric Development. Sterling would need to obtain permission from Avista for an easement for these facilities. The standard land use article in Avista's FERC license for the Clark Fork Project requires that "all necessary federal and state water quality certification or permits have been obtained" prior to approval (FERC 2000b). When Sterling requests access across project lands for the purpose of installing any outfall or discharge facility for the proposed Rock Creek Project, Avista would provide timely notice of this request to the parties to the Clark Fork Settlement Agreement and to FERC. Following consultation with interested parties, Avista would make a decision regarding the proposed easement.

AGENCY DECISIONS

The lead Agencies have a series of steps to go through regarding the proposed action. The first is to select an alternative from the EIS and state the reason for the selection and any additional mitigation, terms or conditions to the selected alternative that may be required to lessen impacts, and then document this in the Agencies' RODs. Depending on which alternative is selected, the No Action or one of the four action alternatives, the steps may very between the DEQ and KNF regarding the types of decisions to be made.

Grounds for DEQ denial, or selecting the No Action Alternative, would be a finding that the mining or reclamation plans would violate the Metal Mine Reclamation Act (MMRA) or the water and air quality laws administered by DEQ. DEQ's authority to improve modifications or mitigations without consent of Sterling is limited to those items necessary for compliance with the Metal Mine Reclamation Act, Water Quality Act, Air Quality Act, or rules adopted pursuant to those statutes.

The alternative selected by KNF, must meet the purpose of the Forest Service locatable mineral surface management regulations as described in 36 CFR 228A and the Mining and Minerals Policy Act of 1970. The regulations state, in part, that all operations shall be conducted, where feasible, to minimize adverse environmental impacts on National Forest surface resources, including complying with all applicable federal and state air and water quality standards, and standards for the disposal and treatment

of solid wastes. All practicable measures must be taken to harmonize operations with scenic values and maintain and protect fisheries and wildlife habitat that may be affected by the operation. If a proposed plan of operation is found to conflict with regulation, policy, or federal law, the Forest Service must notify the applicant that a revision of the proposed plan of operation is required. The applicant then has the option to either modify the plan of operation and resubmit it for approval or withdraw the plan of operation. Prior to the KNF approving the plan of operations, the operator must re-submit the plan of operations incorporating the selected alternative and mitigations and complete any other tasks, studies and bonding as outlined in the KNF's ROD.

The USFWS decides (as documented in its final BO) if implementation of the project would jeopardize the continued existence of any species listed or proposed as threatened or endangered under the Endangered Species Act. The BO includes "terms and conditions" that must be complied with in order to be exempt from the prohibitions of Article 9 of the Act. In addition, the Opinion includes "conservation recommendations" which are suggestions regarding discretionary activities to minimize or avoid adverse effects of the proposed action on listed species or critical habitat. All of the terms, conditions and reasonable and prudent alternative from the BO are included in Alternative V of this EIS except for the addition of organic matter to the soil stockpile during storage. The COE can deny a 404 permit if the project would result in significant environmental impact or violate provisions of the federal Clean Water Act.

PUBLIC PARTICIPATION

Public participation has been a key element in preparing this EIS (see Table 1-4). The first opportunity for public involvement occurred in the beginning of the EIS process when "scoping" was conducted. Scoping is a process designed to identify a broad list of environmental issues related to the proposed action. Scoping was again conducted when preparation of the EIS was resumed after a 4-year lapse. The Agencies separated out the significant issues from those identified during the two scoping periods. The subsequent analyses presented in this EIS focus on the identified significant issues. A summary of issues relating to the EIS is presented in Chapter 2.

Meetings and hearings were held for public participation on the draft EIS, supplemental EIS, and the draft MPDES permit, with a comment period following the release of each of the documents to the public. Additional comments were solicited from the public regarding road closures (Chicago Peak Road Closure) for the development of the alternatives.

Approximately 6,300 commentors responded to date, addressing various concerns and issues. This number represents individuals for the general public, interest groups and their members, other government agencies, and Tribal entities and their members. The number also includes commentors that responded after the comment period closed. Substantive individual comments have been consolidated and grouped together and are included in Volumes III and IV along with the agencies' responses. There are approximately 1,000 comments on the draft EIS and draft air and MPDES permits in Volume III and nearly 1,300 comments on the supplemental EIS and revised draft air and MPDES permits in Volume IV. The main changes resulting from responding to public comments are summarized in the italicized paragraphs below.

TABLE 1-4
Public Meetings on the Proposed Rock Creek Project

May 26, 1987	Public information meeting held on ASARCO's application in Noxon, Montana
January 27, 1988	Public scoping meeting on ASARCO's application at Noxon, Montana
March 22, 1990	Public meeting on ASARCO's petition to amend ambient water quality at Noxon, Montana
June 16, 1993	Public scoping meeting in Noxon, Montana
June 28, 1993	Public scoping meeting in Sandpoint, Idaho
October 5, 1995 to December 5, 1995	Public comment period on draft EIS
November 14, 1995	Open house and public hearing on draft EIS in Noxon, Montana
November 15, 1995	Open house and public hearing on draft EIS in Sandpoint, Idaho
February 20, 1996 to April 22, 1996	Public comment period on draft MPDES permit and water-quality related portions of draft EIS
April 8, 1996	Public meeting on draft MPDES permit in Noxon, Montana
April 9, 1996	Public hearing on draft MPDES permit in Noxon, Montana
April 10, 1996	Public meeting on draft MPDES permit in Sandpoint, Idaho
April 11, 1996	Public hearing on draft MPDES permit in Sandpoint, Idaho
April 22, 1997	Public town meeting in Sandpoint, Idaho, to discuss new alternatives in supplemental EIS
April 23, 1997	Public town meeting in Noxon, Montana, to discuss new alternatives in supplemental EIS
January 9, 1998 to April 11, 1998	Public comment period on supplemental EIS including a 30-day comment period extension
February 10, 1998	Open house and public hearing on supplemental draft EIS in Missoula, Montana
February 11, 1998	Open house and public hearing on supplemental draft EIS in Sandpoint, Idaho
February 12, 1998	Open house and public hearing on supplemental draft EIS in Noxon, Montana

Chapter 2. *A completely new alternative, Alternative V, was developed to address residual water quality concerns, resulting in additional changes in the MPDES permit, air quality permit, and 404 (b)(1) dredge and fill permit. Additional reasonably foreseeable activities were included for use in cumulative impacts analyses. A few new alternatives were considered and then dismissed, and additional rationale for dismissing some alternatives was provided. The text and table comparing the impacts between the five alternatives was updated and revised based on changes made in analyses in Chapter 4 and new mitigations included in various alternatives in Chapter 2.*

Chapter 3. *Additional baseline data was collected for plant species of special concern, some wildlife species (harlequin ducks, fisher, lynx, wolverine), bull trout, sediment, water flow in the Clark Fork River, socioeconomic conditions of Bonner, Sanders, and Lincoln counties, grizzly bears, ore and waste rock geochemistry, and surface and ground water quality. Bull trout and lynx were moved into the Threatened and Endangered Species section due to changes in status.*

Chapter 4. *Analyses were modified based on new data identified in Chapter 3 and the new alternative was analyzed. Some new mitigations were developed and were incorporated into an alternative in Chapter 2. Cumulative impact analyses were expanded based on newly identified and/or described reasonably foreseeable activities in Chapter 2. The Socioeconomics section was completely rewritten to remove any potential bias. A section on regulatory restrictions has been included. The Hydrology section incorporated effluent limits from the MPDES permit and the data and calculations used in preparing tables and analysis were reviewed and revised. The analysis on acid rock drainage was expanded, and analysis of impacts to groundwater in the orebody, wilderness lakes, and springs and seeps was added. Analysis based on KNF meetings and consultation with the tribes was also incorporated.*

Appendices*. The biological evaluation on bull trout was revised and reissued as a biological assessment and included in Appendix B with the revised biological assessment for terrestrial plant and animal species. The preliminary determination on the associated air quality permit in Appendix C was modified based on changes to the preferred alternative. The MPDES permit and statement of basis in Appendix D was revised to match the preferred alternative and then further revised to address concerns about low flow, nutrients, fisheries, and state of Idaho water quality concerns. The U.S. Fish and Wildlife Service Biological Opinion was added as Appendix E. The Preliminary Section 404(b)(1) Showing (Appendix F) was updated and revised to identify sufficient mitigation sites for a 1.5:1 replacement ratio and to include contingency plans for potential impacts to wetlands in the CMW. Information on hydrofracturing and hydrogeology of the orebody was added to Appendix G. A description and analysis of KNF BMP requirements in contained in Appendix H. The conceptual monitoring plans for agency alternatives in Appendix K have been described in more detail and some additional plans have been described. Appendix L presents an updated wetlands mitigation plan for Alternative V. A discussion and summary of sediment modeling in the Rock Creek drainage is included in Appendix N. New KNF management area descriptions for mine operation and power line corridors are included in Appendix O. A summary of the failure modes and effects analysis done on failure of the paste facility and acid rock drainage by Klohn-Crippen was included in Appendix P.*

The public has the right to appeal the Forest Service decision by filing an appeal with the Regional Forester. There are several steps in this administrative process as defined in 36 CFR 215. The State of Montana has no administrative appeals process for this type of permit. The public would need to file legal suit against the State according to the Administrative Procedure Act in the district court of the first judicial district or in the district court of the county in which the land is located.

Public participation does not end with the permitting of a mine. The public has the right to review permit files and monitoring reports. If a person believes he or she is adversely affected by the mine or that there is an unreported violation, that person has the right to file a complaint and expect it to be investigated and addressed (ARM 17.24.129). If a mining company files a revision to an existing permit and it is determined that an EIS is required, then active public participation would be sought. If the action only required an environmental assessment there would be, at a minimum, public notice of the document and the agencies decision and possibly a public comment period on the draft EA. Public recourse to these decisions would be as described above.