

**SUPPLEMENTAL EIS
RESPONSES TO COMMENTS**

MEPA/NEPA PROCESS

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VOLUME IV**NEPA-800 MEPA/NEPA Process**

1. For over 10 years, Asarco has sought approval of the Rock Creek project. This is not a timely or efficient fashion for permitting a mine project. The approval process for this mine has been far too slow and costly. Isn't it about time Alternative 5 is approved in a timely manner?

Permitting the Rock Creek Project in a timely manner would be beneficial to the local communities. This not only cost the mining companies large sums of money but slows Montana's economic growth.

The length of time taken to permit this project does great injustice to the families of Montanans who could be benefitting from a living wage right now.

The delays caused by government policies and procedures will have far reaching impacts on those who regulate, work, or supply mining.

Why does it take so long to permit a mine and put people to work in Montana. (S88)(S3702)(S3708)(S3723)(S3733)(S4090)(S4447)(S4554)(S4565)(S4606)(S4608)(S5163)(S5768)(S4635)(S4640)(S4859)(S5162)(S5761)(S6294)(S6684)

Response: It is unfortunate that it has taken so much time to complete the environmental impact analysis on this project. Some of the delays resulted from a need to resolve concerns about the original tailings impoundment design and later to develop the tailings paste alternative (Alternative V). Sterling's exploration application for the evaluation adit was determined to be a connected action to the proposal and restarted the state's application and environmental impact review processes. The preparation of the supplemental EIS also resulted in a delay in completing the final EIS.

The Forest Service has no requirement to complete an EIS for a proposed project such as the Rock Creek Project in a specified amount of time. However, the state of Montana has a 365-day requirement under the Metal Mine Reclamation Act (82-4-337[1][d][iii] MCA) in which additional review of the application and reclamation plans is to be completed. The applicant may extend the time period; the applicant granted the state a waiver of the 365 day requirement. If an applicant were to deny a waiver then the state would be required to make a decision based on the information and environmental impact analyses available at that time. If the information was incomplete or the analyses not final, then it would be possible that the state would deny the permit. The Forest Service would have to continue with the environmental impact analysis process on its own before it would make a decision on the plan of operations. Sterling would then have to resubmit the application to the state, thus starting the entire process over.

2. What person makes the final decision on the Rock Creek Mine? (S88)(S3702)(S3708)(S3723)(S3733)(S4090)(S4447)(S4554)(S4565)(S4606)(S4608)(S5163)(S5768)(S4635)(S4640)(S4859)(S5163)(S5162)(S5761)(S6294)(S6294)(S6684)

Response: The Director of the Montana Department of Environmental Quality and the Forest Supervisor of the Kootenai National Forest make the final decision on the permitting of the Rock Creek Mine. More detail on agency responsibilities and decisions can be found in Chapter 1.

3. *The NEPA process must remain objective if it is to be useful as a management tool. It should not be politically driven, as is apparent from the socioeconomic section. (S4534)*

Response: The NEPA process is not politically driven and it is the agencies' goal that the EIS be as accurate and as objective as possible. The socioeconomic section has been revised accordingly.

4. *Regarding proposal to locate a concentrate load out facility, discharge pipeline, and ground water pumping facility on WWP property. ...I suggest that reference be made in Chapter 1 of the FEIS to the easement and FERC approval requirement since it represents an additional approval required for the Rock Creek Mine. (S5830)*

Response: This information has been added to Chapter 1 and the table titled "Permits, Licenses, and Approvals Required for the Rock Creek Project." However, the rail loadout facility site is outside the Federal Energy Regulatory Commission boundary but is on property owned by Avista (formerly Washington Water Power). As such Sterling would need to either purchase the land or otherwise get permission to construct the facility.

5. *Particularly baffling was the Biodiversity chapter, which, in some sections, in no way resembles the original Rock DEIS. These differences go beyond minor corrections, and instead are completely different in tone and conclusions. How has the science in these sections been changed? Why haven't these major discrepancies been explained? (S6342)*

Response: In response to public and agency comments, additional data was collected and analyzed after the draft EIS was released. The new analysis, based on more complete data, resulted in changes in the impacts that had been predicted in the draft. The data research/references used as part of the analysis are included in the project file at Agency offices.

6. *Asarco's environmentally irresponsible actions and the resultant damage thereof are the substantial evidence the permitting agencies require to deny the permit, or alternatively, to require further supplement of the Draft EIS. (S6555)*

Response: There are no provisions under Metal Mine Reclamation Act, the National Environmental Policy Acts (NEPA), or the Organic Act to deny a mining permit on the basis of what some people perceive to be irresponsible actions. The allowable reasons for a DEQ denial and the Forest Service's non-approval are described in Chapter 1.

It is quite common for changes to occur between draft and final EISs as an agency gathers additional information to respond to public comments. Both NEPA and MEPA are specific as to the requirements for supplemental EISs. The additional information and new alternative, Alternative V, were sufficient to trigger that requirement. However, the changes resulting from responding to public comments on the supplemental EIS are not substantial enough to require another supplement.

7. *Water quality, acid rock drainage, tailings stability, etc., are all crucial issues maintaining the environmental health of the Rock Creek ecosystems. With the data in-hand, if it cannot be demonstrated that there will be no water quality problems; that the tailings facility will drain properly; that mine water will remain clean or treatable; that there will be no subsidence in the wilderness area due to mining, etc. – then the engineering assumptions used in the EIS should reflect the worst possible scenarios. (S6328)*

SDEIS conclusions are based on the presumption that worst case or significant scenarios will not occur. This is overly optimistic and unrealistic, especially given that most mines have suffered worst case scenarios at some point during mine activities. (S2034)

Why has not a worse case scenario been included in the economic analysis? That being where our ground water becomes contaminated with heavy metals and we cannot safely use it for who knows how long. (S5091)

Response: The term “worst-case” was removed from NEPA several years ago. Under MEPA and NEPA, the impacts are to be discussed in a level of detail proportionate to their significance. For other than significant issues, an EIS need only include enough discussion to show why more study is not warranted (ARM 17.4.616(2), 40 CFR 1502.2(b)). The EIS does discuss some “worst-case” scenarios, but if the likelihood of a particular incident occurring is extremely remote, then the level of detail is less than that for scenarios more likely to occur. The agencies worked with the U.S. EPA and Idaho DEQ on the water quality and acid rock drainage issues. The final EIS has resulting information displayed in Chapter 4, Hydrology and mitigations included in Alternative V description in Chapter 2, and additional monitoring plans and details in Appendix K.

8. *All action alternatives, including Alternative V, violate federal and state laws and regulations. (S22)*

This proposal violates the National Forest Management Act, the Kootenai Forest Plan and the Endangered Species Act and provides ample reason to turn this project down. (S161)

How will the Forest Service comply with the National Forest Management Act, when the project will likely result in the loss of populations of grizzly bear, bull trout, westslope cutthroat trout, and harlequin duck? (S6312)

Response: The action alternatives do not all violate state and federal laws and regulations. Alternative II is the company’s proposal and Alternatives III-V were developed to address significant issues and provide a reasonable range of alternatives under MEPA and NEPA for the decision makers to consider. If any of the action alternatives are permitted, conditions must be established to ensure they comply with all environmental laws and regulations including the National Forest Management Act and the Endangered Species Act. The Kootenai Forest Plan includes provisions for the development of mining operations.

9. *Page 2-16 – Asarco disagrees that MEPA provides a basis for conditioning or denying a permit issued under the MMRA. (S3058)*

Response: The final EIS has been changed to reflect the recent passage of HB473 which provides that MEPA does not provide a basis for denial or conditioning of a permit.

10. *Page 4-2, paragraph 2 – The term significant as used in 40 CFR 1508.27 doesn’t seem to be consistent to the way it is generally used in this document. (S5)*

Response: “Significance” as defined in NEPA allows for variation in meaning according to context and intensity of an action on various resources. Context refers to the setting and can vary depending upon whether or not one is looking at an impact from a local, regional or worldwide viewpoint. Intensity refers to the severity of the impact and several factors have to be considered. This includes whether or not the impact is adverse, beneficial, or both; the uniqueness of the area; the degree of impact to human health and safety and the quality of the human environment; the degree of uncertain or unknown risks; and the potential to adversely affect historical sites or threatened or endangered species. One must also determine if individually insignificant actions could be cumulatively significant and whether or not the action would violate environmentally protective laws or regulations. Some of these factors can vary greatly depending upon which resource is being considered.

11. Page 1-14, under Agency Decisions. "Under this type of decision, the permitted activity might look similar to but not exactly like any of the alternatives described in the final EIS." Is this a NEPA statement? (S3462)

Response: It is impossible for the agencies to determine what the project might look like under a court-ordered approval. We can only assume that it would contain elements found in one or more of the action alternatives such that what was permitted met Sterling's purpose and need for the project. Regardless of the final make up of an alternative, it still has to have been analyzed and impacts disclosed pursuant to NEPA/MEPA either in the existing EISs or a new one.

12. Page 2-1 "No new issues were identified from public comments on the draft EIS." Really? What would constitute new issues? For purposes of good and welfare, I humbly suggest the agencies consider giving credit to the mass of public inputs they have had on this project; that is, take a little space to list the SPECIFIC ISSUES (or whatever you wish to call them) that have been (and are being) raised at considerable expense of public time and energy. (S3462)

Response: All issues in the draft and supplemental EISs were developed as a response to public and agency comments. They were developed during scoping prior to the release of the draft EIS. All of the comments on the draft EIS discussed items relative to one or more of the eight broad issues listed in Chapter 1 or they related to policy and procedure. That is not to say that answering those comments did not result in changes to the EIS. The supplemental EIS was prepared as a direct response to comments raised on the draft EIS. The comment and response section of the final EIS documents how the agencies responded to "issues" raised in public input on both earlier documents and how the final EIS was modified as a result.

13. What potential do the effects have for being beneficial? Semantics: Why is the word "may" used in virtually all the issue statements? Why not be upfront--actually truthful--and use the word "will?" Most of these are not hypothetical, are they? Overuse of "may" detracts from the credibility of the SDEIS, in cases where alteration/and or degradation is clearly what is to be discussed. (S3462)

Response: An impact or effect could be beneficial. Reclaimed vegetation might provide better habitat for certain animals than what had been present prior to mining (on the other hand it might also reduce habitat for other animals). The requirement of some mitigations or alternatives could improve the quality of a resource. Analysis of Alternative V indicates that there is a potential for improving the long-term sediment condition of Rock Creek through sediment source reduction mitigations. And what some people consider to be a beneficial effect could be viewed as detrimental by others such as the socioeconomic impacts of approving one of the action alternatives.

The use of the word "will" would imply that the analysis was completed prior to identification of issues (scoping) and that a decision had already been made. No decision has been made by any agency involved. The use of the words "may" and "might" generally indicate that the forth-coming analysis (in Chapter 4 after scoping) will support or refute the allegation. The outcome is not known for the site-specific conditions until the analysis is completed.

14. We are dismayed by the "permit now and design later" approach that Agencies have appeared to adopt for this project. The SDEIS is replete with phrases such as "the final design has not been submitted" and "the Agencies will review these plans prior to approval." A DEIS is supposed to be a disclosure document, but this SDEIS is not.

We believe the overwhelming amount of data not presented in the SDEIS has prevented meaningful public comment. In addition, we do not believe the Agencies can "fix" these problems in the final EIS. Consequently, we request the Agencies present more detailed information before issuing the final EIS. (S6318)

Critical information on: 1) the tailings impoundment design—including drainage systems, geochemistry of tailings and waste rock, the hydrologic connection to Rock Creek, and potential paste tailings amendments; 2) the proposed water treatment system— including geochemistry of the mine wastes and the degraded water they will generate, the adit closure plan, and the disposal of waste brines; 3) impacts to native fish—including the timing and location of sediment abatement projects to help offset project-related sediment increases; and 4) the financial assurances needed to assure complete reclamation—including costs for long-term water treatment, are not presented in the NEPA document.

A mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA.

In addition, the Ninth Circuit directed the Agency "to provide and estimate of how effective the mitigation measures would be if adopted, or give a reasoned explanation as to why such an estimate is not possible." In this case, since many of the mitigation measures relied upon have not been formulated or finalized, the Agencies cannot meet this requirement. Such after-the-fact review is impermissible.

For the record, we support the Agencies commitment to developing these much-needed mitigation measures. However, we believe more detailed information on these issues must be presented during the EIS process, not outside of it. This information is needed during the EIS process to assure that decision-makers, and the public, are able to make informed decisions regarding the long-term environmental impacts of the Rock Creek project. It's also needed to assure compliance with NEPA and CEQ regulations. (S6318)(S188)

Page 4-50 Paste Facility Seepage. This paragraph describes more of the same, perm it now ; design later. This is unacceptable! (S614)

ASARCO is preparing an underdrain design for their paste facility seepage that would be included as part of the final paste design to collect drainage from the base of the paste facility. Because this design is not complete, it is impossible to determine or predict the seepage that will occur. Such information is important for the public to be able to comment on. How will the NEPA process be incorporated with the future findings determined by the final underdrain design? (S22)

Page 4-50 Paste Facility Seepage. This paragraph describes more of the same, perm it now; design later. This is unacceptable! (S614)

Response: Many projects, including mine designs, are developed in stages. Conceptual designs are supplemented by preliminary designs which are supplemented, in turn, by final designs. Each design phase requires additional quantities of data. The data necessary to develop a final design is not reasonable to gather at this stage of the project because no decision has been made to approve any specific alternative.

Mitigation measures are commonly used to reduce, and if possible, to eliminate certain environmental impacts resulting from implementation of a project. These measures can be classified as concrete measures based on existing data and conceptual measures based on data that is not reasonably available at the time of the analysis. As an example of the latter, Sterling must construct mine openings to gather additional rock mechanics data. However, the law precludes development of mine openings without a permit. Thus it is unreasonable to require data that cannot be obtained without a permit, prior to issuance of permit. Nevertheless, mitigations are briefly described in Chapter 2 with more detail provided for more complex ones.

If Sterling receives a permit and if data collected in the future indicates impacts of mining are greater than anticipated, then Sterling and the agencies would attempt to modify the final designs so that impacts would be at or below those disclosed in this EIS. The MEPA/NEPA process would be

implemented during the review of any subsequent actions including revisions to the approved permits and plan of operations to ensure informed decision making takes place.

The scope and effect of the mitigation measures listed in Chapter 2 of the supplemental EIS were presented in Chapters 2 and 4 of the draft EIS and for each respective alternative in Chapter 4 of the supplemental EIS and are included in Chapters 2 and 4 of the final EIS as well. Thus, mitigations identified in this analysis are more than perfunctory. The mitigation measures are an integral part of the Chapter 4 analysis. However, no mitigations would be, or even can be, adopted or finalized until the analysis is completed, the EIS released, and a decision on which alternative will be permitted is made.

15. Given the many uncertainties regarding the Rock Creek project, and the fact that much of the information needed to address those uncertainties will be collected during development of the evaluation adit, the Agencies should carefully consider delaying the permit decision on the mine until adequate information is presented.

The Agencies violated their NEPA/MEPA duties when it prematurely issued the SDEIS on the Rock Creek project without waiting for the results of studies that the Agencies admit must be done.

One alternative to help meet this requirement would be to only authorize ASARCO to develop the evaluation adit. Doing so will enable ASARCO to collect the critical information the Agencies and public need to make an informed decision. Additionally, it will allow ASARCO to gather data they need to determine ore grades and milling processes. (S6318)

We believe that the SDEIS for this mine proposal violates a number of state and federal environmental requirements, and consequently, that additional information must be presented to the public before a Final EIS is issued. Our primary concerns relate to: the lack of adequate baseline data on the geochemistry of the ore, tailings, and waste rock associated with the project; This lack of detailed information prevents the public from reviewing and commenting on all relevant information, and the responsible Agencies from making informed decisions. These inadequacies must be addressed to assure compliance with the National and Montana Environmental Policy Acts. (S6318)(S188)

Collection and testing for site-specific ore grade, geochemical data, and rock mechanics study provides critical missing information.

Site-specific geochemical data and additional hydrologic evaluation provides a more accurate assessment of water quality impacts.

The adequacy of proposed water quality mitigation can only be meaningfully evaluated following water management, mine wastewater treatment processes, and detailed design development for site-specific water quality.

A more thorough assessment of the proposed tailings impoundment site geophysical and geohydrological characteristics combined with detailed design is necessary for the adequate evaluation of the conceptual paste tailing disposal alternative. (S188)

Geochemical characterization and prediction of metals transport is based on non-site-specific information. Without further modification, Alternative V is not the least damaging practicable alternative that could be permitted. (S188)

Response: 40 CFR 1502.22 requires the agencies to explain the availability, or lack thereof, of specific information and to base their evaluation of impacts on theoretical approaches or generally accepted research methods. Specialists concur that there is sufficient data to predict impacts using accepted scientific methods and best professional judgement and to form the basis for a decision.

The impact analysis in Chapters 4 of the draft and supplemental EISs identifies impacts to the best of the agencies' ability under this NEPA guidance. Any future permit changes driven by data collected as a result of permit conditions are subject to the requirements of MEPA and NEPA, thus ensuring the agencies (1) consider environmental impacts in the decision making process, (2) make "information available to public officials and citizens before decisions are made" and (3) look before they leap.

Chapters 4 of the draft, supplemental, and final EISs have addressed the impacts of the proposed action using all reasonable available data and identified potential impacts using the appropriate scientific methods where data is not reasonably available as required by 40 CFR 1502.22. The data collection measures proposed as requirements under the various alternatives in the EIS serve two purposes: to refine future designs and to validate conclusions drawn from the information currently available. In the event the permit is issued and future data collection and monitoring indicate plan changes are needed, those changes would be made subsequent to the appropriate level of review required by MEPA and NEPA. Much of the data proposed to be collected cannot be gathered without creating many of the disturbances evaluated in the EIS. The information required under the proposed mitigations is not significant to the decision without "exorbitant costs ... and ... possible harm to the environment."

16. Our primary concern is that the lack of baseline geochemical data and design information precludes the Agencies from making informed decisions on: 1) potential impacts to water quality in the Clark Fork River and Lake Pend Oreille, 2) the potential for acid mine drainage and metals leaching associated with mine wastes, 3) the ability of the proposed water treatment system to meet MPDES permit limits, and 4) the financial assurances needed to ensure complete reclamation of the mine disturbances. (S6318)

Response: Please read the two previous responses in this section that deal with insufficient baseline data and conceptual versus final designs for information pertaining to items 1) and 2). The Agencies have been working with EPA and Idaho DEQ on further describing in the final EIS monitoring and trigger alert levels for both water quality impacts and acid rock drainage development.

3) The water treatment systems proposed for Alternative V are based on existing operational systems. It is true that the existing biotreatment cell size at the Stillwater Mine would be insufficient to treat the maximum volume of water needing treatment at the Rock Creek Mine during the final years of operation. The biotreatment system for the Rock Creek Mine could use larger cells and would add additional cells as the water volume increased during mine life. Additional reverse osmosis cells would be added as needed as well. Additional information regarding the water treatment systems is provided in the Chapter 4 section on Hydrology, Alternative V, Surface Water Quality.

4) Bonding is covered in Chapter 1 under agency responsibilities. This section has been expanded to more fully explain what DEQ can legally bond for under Metal Mine Reclamation Act. The estimated bond for the action alternatives ranges between \$21 and \$30 million with an additional \$14 to \$44 million for water treatment. The final bond amount would not be calculated until a decision is made to approve the mine. If the decisionmakers decide to approve one of the alternatives analyzed in the final EIS, those bond calculations will be available for public review with the Record of Decision in Agency project files.

17. *Knowing that the chosen area is part of the Clark Fork and Lake Pend Oreille watershed I feel that all questions that have been brought forth should be answered prior to the beginning of the operation of mining. (S4015)*

Response: All relevant questions and issues raised during the NEPA process and development of the final EIS have been considered and addressed here or in the analysis. Mitigations, new alternatives, and monitoring plans have been developed to address public comments and questions.

18. *Page 1-14, 1st paragraph. Has Bonner County, ID been allowed to comment? (S4832)(S4833)*

Response: Yes. Copies of the draft and supplemental EISs were sent to the Bonner County Commissioners and the Bonner County Planning Department.

19. *The following statement is quoted from Appendix H, page H- 1. "ASARCO would develop a final monitoring plan for approval by the Agencies prior to project startup. All plans will need to identify trigger or alert levels, which, when reached, would require ASARCO to implement a corrective action plan. Corrective action plans for the most likely scenarios need to be developed and approved before startup." In our judgment this is completely unsatisfactory, probably illegal. The monitoring and corrective action plan is an essential part of the mining operation plan that must be available for the public review that is an essential element of both NEPA and MEPA. Review and approval by the agencies following granting of the permit does not meet the public participation requirement of both NEPA and MEPA. Those laws require that the EIS provide the public with information concerning all potential environmental impacts from the project. Without complete information concerning proposed monitoring and proposed corrective actions, if necessary, the public cannot be fully informed. It is our contention, that, without this information as an essential part of the EIS, the EIS is not an adequate evaluation of the impact potential of the project and therefore cannot serve as an adequate basis for a permit decision. (S5130)*

Appendix H of the SDEIS presents the Agencies conceptual monitoring plans for the Rock Creek project. These include plans for: 1) air quality, 2) geochemical characterization, 3) water resources, 4) wildlife, 5) aquatics and fisheries, and 6) reclamation. The discussion notes that "all plans would need to identify trigger or alert levels, which, when reached, would require ASARCO to implement a corrective action plan."

We support the development of these monitoring plans, and believe the Agencies' conceptual plan provide a good starting point. However, we also believe several critical issues associated with these plans must be considered during the EIS process, not after a permit decision has been made.

For instance, the geochemical characterization plan "would include trigger values that would require special handling and disposal". These trigger values should be presented during the NEPA process. Many of the mines facilities—including the mill pad and tailings impoundment toe buttresses—will be constructed with waste rock from the evaluation and access adits. The Agencies should disclose what amount of metals leaching they deem "acceptable" for waste rock used in construction purposes, as this will directly effect environmental impacts of the project. (S6318)

The following statement is quoted from Appendix H, page H- 1. "ASARCO would develop a final monitoring plan for approval by the Agencies prior to project startup. All plans will need to identify trigger or alert levels, which, when reached, would require ASARCO to implement a corrective action plan. Corrective action plans for the most likely scenarios need to be developed and approved before startup." In our judgment this is completely unsatisfactory, probably illegal. The monitoring and corrective action plan is an essential part of the mining operation plan that must be available for the public review that is an essential element of both NEPA and MEPA. Review and approval by the agencies following granting of the permit does not meet the public participation requirement of both NEPA and MEPA. Those laws require that the EIS provide the public with information concerning all potential environmental impacts from the project. Without complete information concerning proposed monitoring and proposed corrective actions, if necessary, the public cannot be fully informed. It is our

contention, that, without this information as an essential part of the EIS, the EIS is not an adequate evaluation of the impact potential of the project and therefore cannot serve as an adequate basis for a permit decision. (S5130)

Response: Final plans are generally not developed until a permit has been issued so that the plans match what has been permitted. Many of the plans require additional data that cannot be obtained without creating unpermitted surface disturbances. An Evaluation Adit Data Evaluation Plan has been developed that describes the type of data to be collected from the evaluation adit and how that data would be used to refine and modify other monitoring plans and facility designs. Field data collected to further characterize the tailings facility and mill sites would be used to develop the final designs for those facilities and associated seepage collection systems and monitoring plans as well. Air quality limits and monitoring requirements are defined in the air quality permit determination (see Appendix C). More detail has been provided for the Geochemical Characterization and Monitoring Plan and it would be further refined with geochemical data from the evaluation adit prior to mine operation. Water quality trigger or alert levels and associated monitoring of permitted discharges are defined in the MPDES permit in Appendix D. Some additional information has been added describing water quality contingencies and remedial action plans, but these would be further defined with data collected from the evaluation adit. A more detailed wildlife monitoring plan is on file with the agencies as is that for aquatics/fisheries. The monitoring and mitigation plans for threatened and endangered species are described in the Biological Assessment.

20. Summary (pp 4-125,126) There is no reference to other major mining/industrial activities which are proposed or imminent in the project influence area. These could have a substantial influence, as could the Asarco mine. These other activities cannot be ignored any more than can the effects of the Asarco mine. Two other mines have or may influence the area, Asarco's Troy Mine and Noranda's Montanore Mine. What other mineral extraction potentials exist in this area? What commercial/industrial potentials exist in the area, including "clean" and/or "green" industries? (S4592)

Response: The Socioeconomics Chapter 4 summary has been modified to include the cumulative impacts that could occur if the Troy Mine resumed operation and the Montanore Mine resumed development at the same time as the start up of the Rock Creek Project. The only other primary mineral operations in the region include a small private quarry in Lincoln County, U.S. Antimony's inactive mine and operating mill facility in Sanders County, and a few small sand and gravel operations scattered throughout the region. There are no cumulative impacts associated with these operations. Analyzing the potential for other commercial/industrial operations and their potential cumulative impacts with regard to the Rock Creek Project, is beyond the scope of this EIS. Only reasonably foreseeable future actions as well as past and present activities are used for cumulative impact analysis. To be considered reasonably foreseeable, there must be some sort of plan, design, permit application, or environmental analysis documentation available for review and analysis.

21. My family routinely uses both the Chicago Peak Road No. 2741 and Rock Creek Road No. 150 for hiking, viewing, hunting and huckleberry picking. Others use these routes for wilderness access, fishing and firewood gathering. Both provide opportunities for families with young children and aging members of their households to access these various recreational opportunities without strong, sturdy, seasoned legs. It is a sad day indeed when we are reduced to selecting one over the other. This should not boil down to a voting process to determine which road to close. I urge you to back up and reconsider, involve the USFWS in a public meeting on this matter and come up with some other alternatives that are not so restrictive on the people. (S25)

Response: You are right, this is not a voting process. The comment period was provided and is required under NEPA and MEPA to seek input for effects of the proposed closure change and to see if there were any other alternatives that could be implemented to meet management guidelines that are in place to comply with the law (Endangered Species Act). The U.S. Fish and Wildlife Service

has been involved extensively in the public involvement process and the development of alternatives and mitigation measures.

22. *The applicant has presented no [substantial] evidence to demonstrate that the area can be reclaimed to its historic, wildlife, and recreational use. Likewise, Asarco cannot point to its science as reliable, tested, tried and true - the science it is proposing is incomplete and speculative at best. (S6555)*

Response: Comment noted. The methods that were used to collect baseline data for the proposed project, and to describe the project proposal meet accepted standards for mine applications and pertinent laws and regulations. Mine reclamation science is over 30 years old. This knowledge was utilized in this analysis.

23. *Page 2-27: For purposes of complete description of the proposed project and disclosure of potential environmental impacts we believe the FEIS should identify the probable location(s) of the off-site smelter(s) that are likely to receive and process the metal bearing sulfide concentrate from the Rock Creek Mine. (S146)*

Response: The evaluation of impacts from smelting the concentrate are beyond the scope of this EIS. The smelter to be used would be the one which offers the best price per ton of concentrate. Over the life of the project Sterling may switch smelters a couple times or they may stick with their original choice. The majority of the Troy concentrate went to the ASARCO smelter at El Paso and some went overseas and to Canada. It is unknown where the Rock Creek ore concentrate would be sent to.

24. *Enforcement and compliance issues are not treated in the EIS and related documents. (S4185)*

Response: Issues related to enforcement and compliance as they relate to discharges from the proposed project are discussed in the MPDES permit. See also Chapter 1, Agency Roles and Responsibilities. Analysis of enforcement is beyond the scope of this EIS.

25. *It will also be important for appropriate changes to be made in the Final EIS and Record of Decision for the project, and for project changes, mitigations, monitoring, and other requirements and commitments necessary for protection of the environment, that are included in the NEPA documentation, to be included in the Plan of Operations approved by the U.S. Forest Service and/or permits issued by the Montana Department of Environmental Quality. We suggest that specific performance standards be established whenever possible in the Plan of Operations and MDEQ permits to trigger actions to protect the environment. (S146)*

Response: Once a permit is approved, the applicant must submit replacement pages for the Plan of Operations so that it matches what alternative, stipulations, and other requirements were approved in a Record of Decision. This is standard DEQ and USFS policy. Performance standards are included whenever possible or appropriate. Montana water quality standards include trigger values and trigger levels are included in the MPDES permit.

NEPA-801 Alternatives

1. *Given the responsibility of the Forest Service to "minimize environmental impacts," agencies should disclose a full analysis of a joint venture alternative (between Noranda and ASARCO) for the Montanore Project. Although this alternative was briefly addressed in the DEIS on page 2-100, the environmental advantages have not been fully explored. It appears that the agencies dismissed this alternative based upon the economic, timing, legal and liability issues, which have not yet been disclosed to the public. (S471)(S614)(S1905)(S2794)(S3462)(S3466) (S3476) (S3591)(S3632)(S3634)(S3654) (S4005)(S5066)(S5086)(S5091)(S5093)(S5101)(S5122)(S5131) (S5484)(S6312) (S6575) (S6592)(S6629)*

Response: As stated in the Alternatives Considered But Dismissed section of Chapter 2, the combined mine alternative appears to be feasible and potentially could decrease or eliminate some project impacts. However, it would also increase other impacts and/or create new impacts. The final EIS contains an updated and expanded joint operation discussion. Though there are some benefits, the Agencies do not have the authority to make the companies work together and therefore the alternative was considered, but not in detail.

2. *Investigate thoroughly the second part of the No Action Alternative, the buy out by public agencies section. This idea was written off summarily a few years ago. But given the changes in public attitude towards mining in environmentally sensitive areas, this alternative deserves a second look especially if the potential process includes more creative options such as approaching Washington Water Power, now in the midst of FERC relicensing, for assistance. (S177)(S188)(S471)(S3462)(S6312)(S5788)(S6629)(S6332)*

Response: The No Action alternative has been analyzed thoroughly by the agencies. As stated in the EIS, the Forest Service does not have the authority to acquire (buyout) Sterling's interest. The Administration would need to decide this was the course of action to be pursued. Congress would need to follow up by enacting enabling legislation for the President's signature.

3. *I propose an alternative which either moves the tailings impoundment to another location or since ASARCO can now make paste, that they make building blocks from the waste on a neutral site, not Forest Service lands, either in Sanders or Lincoln county. (S1434)*

Response: Alternative locations were considered but not in detail and dismissed for a variety of reasons (see Chapter 2, Alternatives Considered But Dismissed and Appendix G). The Forest Service conducted a detailed tailings impoundment analysis in 1986, Cabinet Mountains Mineral Activity Coordination Report. This report looked at 21 potential tailings impoundment sites. Based on the evaluation criteria used in the report, the number of possible sites was narrowed down. The current proposed site best meets the siting criteria. National Forest System land amounts to approximately 20 percent of the tailings storage site.

The applicant has demonstrated that Troy Mine tailings would be suitable as the primary ingredient of Aerated Autoclaved Concrete (AAC) blocks. There are lots of factors which Sterling would need to consider besides the ability to make blocks such as demand for such a product, other raw material needs and transportation to a market. While Sterling might pursue such use of the tailings in the future, an AAC plant is not part of Sterling's proposal and thus is outside the scope of the Agencies' analysis.

4. *Please add the following discussion to Part III of Chapter 2 in FEIS: Other Recoverable Claims. ASARCO has made an extensive and costly evaluation of the surrounding area. In 1993 ASARCO relinquished all of its rights and interests in two other deposits because no economic concentrations of copper and silver were found. Currently ASARCO's mining claim holdings in the western Montana copper-sulfide belt are solely related to the Troy Mine and the Rock Creek project. Economically recoverable copper and silver deposits are rare and difficult to find. If*

there were areas that provided the metals that were more environmentally suitable to mine, ASARCO or other companies would have pursued mining them. ASARCO is in the business of maximizing the profit of its stakeholders' wealth. Even if ASARCO does hold other recoverable copper and silver mining claims or could purchase others elsewhere, it seems to the Corps of Engineers that we should not consider any other recoverable claims as reasonable alternatives because the applicant has asked for a response to a specific ore body. The location of the defined deposit necessarily controls the location of the mine. (S3312)

Response: The wording as suggested has been put in the EIS.

5. Require ASARCO to backfill 40 million tons of tailings into the mine workings. ASARCO has determined that this volume will fit back in, and doing so will reduce the size and impacts caused by the tailings impoundment next to Rock Creek and the Clark Fork River, and reduce the likelihood of subsidence in the wilderness lakes above the mine.... where are the available data showing that backfilling was properly analyzed?

On page 2-86, the SDEIS states that paste backfill will reduce mine water inflow. However, it goes on to say, "Requiring paste backfill for ground water control would be a less effective and more costly procedure to achieve this goal than other conventional methods." The agencies should not dismiss the possibility of paste backfill on the basis of cost effectiveness. Whether a mining company like ASARCO can afford to use the best available technology is not an issue. The issue is what technique will best "minimize adverse environmental impacts" to national forest lands. (P)(S177)(S805) (S1687)(S1851)(S3462)(S3465)(S3632)(S3933) (S3955)(S3965)(S3971)(S3983)(S3965) (S4046)(S4222)(S4352)(S4364)(S4377)(S4429)(S4628)(S4771)(S4801)(S4802)(S4910)(S5052)(S5054)(S5066) (S5086)(S5098)(S5100)(S5122)(S5140)(S5621)(S5776)(S6312)(S6328)(S6342)(S6572)(S6588)(S6599)(S6613) (S6638)(S6640)(S6712)(S6740)(S6745)(S6806)

Response: The supplemental EIS and final EISs have displayed in Chapter 2, Alternatives Considered But Dismissed, a description of the backfill alternative and a discussion of its feasibility and rationale for its dismissal. NEPA/MEPA require the analysis of a reasonable range of alternatives which address identified issues. Although backfilling does address some of the issues, the Agencies found that it was not a reasonable or practical tailings disposal method given the geometry of the ore deposit and the project. Additionally, it would not eliminate the need for a surface tailings storage site that would be slightly smaller in acreage and height of that proposed. Please refer to Chapter 2 for more details and the following three comments and responses.

6. There are creative options that could be employed that would allow paste backfill to be efficiently utilized. The mill facility could be located underground. This means the tailings would not have to be transported uphill from the mill back to the mine for backfill. Tailings could be moved directly from the mill, to a paste preparation plant, and directly into the mine. The major disadvantage to this scheme seems to be the time it would take to excavate the large spaces underground that would be required for the underground mill facility. ASARCO has indicated it would take two years to construct an underground mill. This could be done at the same time the other infrastructure at the mine was being constructed. (S6328)(S6312)

Response: The Agencies' tailings backfill analysis, in Chapter 2, Alternatives Considered But Dismissed, includes a review of underground milling facility requirements. Underground milling was dismissed for several reasons as stated in the section such as substantially more waste rock would need to be placed on the surface. The high capacity electric lines would need clearance thus requiring a longer adit and ore would need to be stored on the surface during mill excavation and then hauled back for processing.

7. *Paste Backfill.* On page 2-86, the SDEIS describes decreased surface disturbance and as a potential benefit of paste backfilling. It states, "no more than 40% of the tailings could physically be returned to the mine. The remaining 60% would need to be stored on the surface." This means that nearly one half of the tailings material could be returned to the mine. Although the SDEIS also states, "The overall foot print of the tailings facility would not change dramatically," a change of 40% of the volume is a significant reduction. (S6312)

Response: The Agencies acknowledge that a 40% reduction in surface tailings volume would be significant. However, a reduction in volume does not equate to a proportional reduction in paste facility acreage or height. If all the reduction was taken by reducing the height, it is estimated that the total height would be reduced by 58 feet, thus resulting in 267-foot-high tailings facility. If instead the intent was to reduce the surface acreage, it is estimated that the tailings facility could be reduced by 55 acres yielding a 270-acres tailings facility.

8. *Under the present mine proposal, 35% of the ore body would not be mined because of structural considerations. Backfill, especially tailings mixed with concrete and waste rock, could allow a significant increase in the ore recovered from this ore body.* (S6328)(S6312)

On page 2-86, the SDEIS describes increased ore recovery as a potential benefit of paste backfill. However, it also says, "Paste backfilling for subsidence control is not considered a reasonable requirement given the proposed mine plan and the strength of the surrounding material." However, as described on page 4-17 of the SDEIS, the strength of the surrounding material has not yet been determined. (S6312)

Response: The strength of surrounding rock is inferred from information derived from the Troy mine and results of core drilling of the Rock Creek deposit. The Troy Mine operates in and near rock types that are essentially geologically identical to those of Rock Creek (see Chapter 3, Geology). Therefore, there is a very good basis for predicting the strength of rock in the area of the Rock Creek deposit. If and when the evaluation adit is developed, more information would be developed to validate the analysis made in the final EIS, or to generate underground design modifications. If it is found that the analysis was incorrect and therefore the analysis and effects are incorrect, then further NEPA/MEPA analysis may be necessary. Regardless of the strength or weakness of the underground rock, backfilling is not a reasonable alternative. Please see Alternatives Considered but Dismissed discussion in Chapter 2.

9. *Staged or Delayed Development of the Rock Creek Mine.* This alternative could "minimize environmental impacts" by avoiding the simultaneous development and operation of two enormous industrial mining projects in this ecosystem (Noranda Montanore & ASARCO Rock Creek). Data in the SDEIS suggest that the 93,000-acre Cabinet Mountains Wilderness and the wildlife that reside within simply cannot sustain the cumulative impacts of both mines. (S6312)(S188)

Adequate consideration of the alternative of combining, phasing or merging the Rock Creek and Montanore Projects is facilitated with additional time for meaningful consultation among the involved parties. (S188)

In accordance with the Montana Environmental Policy Act (MEPA), the Montana Department of Environmental Quality (MDEQ) should evaluate and choose other alternatives in order to avoid an impact that would significantly degrade the human environment. In particular, socioeconomic considerations related to way-of-life values and boom-bust economics have not been adequately mitigated. Sequencing of the Troy, Montanore, and Rock Creek mines is a logical alternative that would significantly avoid socioeconomic impacts. This alternative would provide for up to 70 years of semi-continuous mining operations (limited by economic demand for metals), and would lessen the economic impact of mine start-up, temporary mine closures and openings, and the eventuality of mine closure upon exhaustion of mineral reserves. (S188)

Response: The Agencies discuss, in Chapter 2, Alternatives Considered But Dismissed, several approaches to combining the Rock Creek Project with that of Noranda's Montanore Project which was permitted in 1993. Cumulative effects of the Rock Creek Project in association with the Montanore Project are discussed in each of the Chapter 4 resource sections. There would be impacts should both mines operate concurrently, but there would be no significant impacts which would require staged development.

10. *A discussion of violation of other laws (i.e., ESA) as grounds to deny a permit should be explained better under the no action alternative. (S6312)*

Response: The Agency specialists analyzed the project in light of the laws and regulations relating to their speciality. The final decision as documented in the Record of Decision cannot be in violation of laws. The U.S. Fish and Wildlife Service will make the final determination in their biological opinion whether the project, as designed, meets the Endangered Species Act and if it does not, they will propose a reasonable and prudent alternative to the Agencies.

11. *Alternative V places emphasis on water treatment and regulation of discharges as a means to address water quality issues, but appears to leave source minimization practices to the discretion of the operating company. Minimization of water flow into the underground mine workings, whether by recycle, grouting or backfill, should be stipulated and emphasized as a mitigation in this regard. The ability to mine ore to within 100 feet of the surface, and within 700 feet of the wilderness lakes, should be contingent upon demonstration of the effectiveness of grouting, and/or a commitment to backfilling. (S188)*

Response: Sterling would be required to submit refined mine plans for Agency approval prior to mining in any of the high column areas or shallow ore zones of the deposit. Additional research (MT DEQ 2001) has resulted in the requirement of 1,000-foot horizontal buffer zones around Cliff Lake and the north and south ore outcrop zones. Additionally, a 450-foot vertical buffer between the surface and mine workings would be required to reduce the risk of hydrofracturing (see Chapter 4 - Geology and Hydrology for more information). The buffer zones could potentially be modified based on rock mechanics and hydrogeologic data collected during evaluation adit construction development. The buffer zone could not be mined until such time that it was demonstrated that such activity would not significantly impact the wilderness characteristics of the lake or generate mine water discharge into the wilderness. Sterling has committed to minimizing the inflow of water to the mine by grouting in advance of mining or adit development. If areas were found during advanced drilling that are determined to be high water producing zones, every practical means would be used to avoid mining through those areas until potential inflows could be minimized. The applicant has committed to grouting as a water management tool in its permit application. Water in the mine would be used for mine development, used as process water, or treated and discharged. Water segregation within the mine would also be used for water quality control management.

12. *The SDEIS violates NEPA's mandate to review all reasonable alternatives in a number of ways: (1) the Forest Service only reviewed a limited subset of reasonable alternatives; (2) the SDEIS did not look at all reasonable alternatives; (3) the SDEIS improperly rejected viable alternatives; and (4) the agency improperly dismissed the no-action alternative as a viable option.*

The following reasonable alternatives should have been reviewed:

The Agencies failed to consider the alternative of authorizing construction of the evaluation adit only at this time. The evaluation adit is needed to ascertain the actual extent of the recoverable reserves, as well as to gather information on rock mechanics, geochemistry, and hydrology. In essence, the adit is needed to determine if the Rock Creek Project is a viable project, from both an economic and environmental standpoint.

As noted elsewhere in these comments, the failure of the Agencies to gather, review, and disseminate critical information on these issues fatally flaws the NEPA/MEPA process to date. The Agencies cannot allow the "full" project to go forward without full public review of this information. Since this information will be largely obtained via the evaluation adit, it makes sense to postpone review and approval of the full project until all relevant information is available.

ASARCO may argue that the "purpose and need" for the project is to mine copper and silver from its patented ore body and that an "evaluation adit-only" alternative fails to meet its objectives. However, it must be remembered that the current SDEIS and company submittals are legally and factually inadequate and/or incomplete. As such, the "full" project cannot be authorized under current conditions.

It might be possible that the evaluation adit alternative is the only way the full project could ever be authorized (or the EIS pass legal muster). In other words, only by seeing what data is gathered from the evaluation adit can ASARCO, the Agencies, and the public be assured that all legal requirements can be met. In addition, ASARCO would have a better idea of the true extent of its recoverable reserves and thus would be in a better position to determine if the full project was financially worthwhile.

The concept of approving evaluation/exploration activities prior to full-scale production is a common, indeed, the most prevalent practice on the federal public lands. This normal sequence allows both the company and the land manager to better ascertain the economic and environmental parameters at the site. In this case, however, the Agencies have it backwards authorizing full-scale production prior to knowing critical information about the project/site and its impacts.

The SDEIS notes the possibility of locating a ventilation shaft within the Cabinet Mountains Wilderness Area. The SDEIS does appear to locate the shaft in a less-damaging Wilderness location. However, any location violates the strict non-degradation requirements of the Wilderness Act and Forest Service requirements.

*Overall, the Forest Service cannot approve any impacts to the Wilderness if there are other feasible alternatives to locating the shaft within the Wilderness. The SDEIS fails to review alternative locations outside the Wilderness. At a minimum, such a failure violates NEPA and MEPA. It should be remembered that the possible fact that such a location may cost additional monies is not an excuse to fail to review, and even require, such a location. See, *Clouser v. Espy*.*

In addition to the above-noted alternatives that were not even reviewed in the SDEIS, this section of these comments reiterates other Coalition comments discussing the failure of the Agencies to more fully review (or improperly reject/dismiss) the following alternatives: (1) Multi-layer liner system beneath the tailings facility; (2) an alternative that complies with the zero-discharge requirement of 40 CFR 440.104 New Source Performance Standards; (3) an alternative that complies with INFISH's Standards and Guidelines, especially regarding protection of riparian areas; and (4) in general, an alternative that more fully mitigates the environmental impacts from the project. (S6328)(S6312)

It is our recommendation that the agencies permit the evaluation adit as proposed, and delay any decision on full-scale production until necessary additional information is obtained, considered by the agencies, and presented the public. (S188).

It is our conclusion that additional reasonable and practical alternatives and mitigation, respectful of the proponents purpose and need for the proposed action, have not been adequately considered by the agencies and company. It should be noted however, that even with these additional recommendations, because of the site-specific location, the project plans may still not adequately address all concerns relative to significant issues. (S188)

Response: Under NEPA and MEPA the agencies review reasonably feasible alternatives which address significant issues and for alternatives which are eliminated from detailed study, briefly

discuss the reasons for having been eliminated. Both the process and the alternatives are discussed in Chapter 2.

The agencies do not have the authority to “not act” on an application. Decisions must be made to approve, deny, or approve with modifications (see Chapter 1, Agency Decisions). The analysis to date has not identified a sound scientific and regulatory basis for denial of either the mine or the evaluation adit application. The agencies do not believe the range of potential impacts changes with the potential to approve, deny, or modify the application. Although additional information would be gathered from the evaluation adit, the level of detail is beyond that necessary for decision making. Rather it is information used to refine designs. Data collection would not end with the construction of the evaluation adit. It would continue to be collected for the life of the operation and would continue to be used to refine designs.

The alternative of only analyzing the evaluation adit was considered. When the agencies received the Evaluation Adit Application, they already had been analyzing the mine application for a number of years. It was determined by our MEPA/NEPA specialists that we could not just analyze the evaluation adit application since the mine and the evaluation adit were connected actions. The bottom line is the Agencies had to proceed with a full analysis as is currently being done. Even if the whole proposal is permitted, Sterling would still have to do the evaluation adit work first and then show that the findings are consistent with the assumptions used in the EIS analysis.

Based on the layout of the ore body, the location of a ventilation intake adit where shown for Alternative V is the logical area to facilitate management of the underground air quality. Because of changes in Alternative V (use of electric ore haul trucks and low emission diesel engines underground), the extra adit may not be needed but the Agencies had to disclose possible impacts. Other mitigation is required such that if new technologies become available before the air-intake ventilation adit was needed, then Sterling must investigate them. If they eliminate the need for the adit, then it would not be constructed. The ore body for the most part is entirely under the wilderness. The intent on managing air flow is to bring the air through the mine workings which necessitates an air-intake adit on the far end of the deposit.

13. Is there a chance after completion of initial facilities, ASARCO would walk away from \$2 billion worth of copper/silver? What impacts would this initial startup phase followed by abandonment have on all of these environmental and socio-economic factors? Has this 'alternative' been analyzed? (S4832)(S4833)

Response: The decision by Sterling to develop the permitted Rock Creek project would likely be based on financial considerations and the price of metals. If mine development activities ceased after startup, reclamation activities would need to be initiated. Because the initial area disturbed would be less than the total area disturbed at the end of mine life, the overall environmental impact would be expected to be lower. This scenario was not developed as an alternative because it would not meet the purpose and need for the project as described in Chapter 1.

14. Page 2-73. Where is the relocated evaluation adit support facility located? (S614)

Response: In Alternative V, the evaluation adit support facility was moved to just north of the intersection of FDR No. 150 and Government Mountain Road. The site was chosen to facilitate the busing of evaluation adit workers from the facility to the adit, to minimize disturbance to harlequin ducks and to put it in an area that will be used for the tailings paste facility during mine operation.

15. *With lead contamination exceeding 2,900 times the EPA toxicity level found in the soil of Asarco's Troy mine, there should be extremely close scrutinization of their proposed plan for Rock Creek. (S614)(S3293)*

Response: In the response to public and agency comments regarding the contamination at the Troy Mine rail loadout, the Agencies developed Alternative V which includes the piping of concentrate, the use of covered rail cars and the enclosure of the whole loadout facility. As it is designed, no concentrate would be handled outside the building and the interior would be designed to contain all concentrate which might spill. Yearly sampling of the soil outside of the building would be done to ensure that no contamination of the surrounding area occurs.

16. *Page 2-13 Piping the concentrate introduces new risk of seepage and spills along the pipeline. How might leaks in this pipeline affect ground water?*

Page 2-89 re: Conveyor transport--"In addition to operational factors and health and safety concerns, which are the primary reasons for eliminating this method of transportation, there would be additional capital and operational costs to the company to acquire, operate, and maintain the fleet of trucks, and employ the additional drivers." Why are the financial concerns of Asarco deciding factors here? (S3462)

Response: The Agencies explored thoroughly the utilization of the concentrate pipeline. Research and analysis showed that the utilization of the concentrate pipeline reduces risks overall. For example, if the inner pipe springs a leak the detectors would sense it and put out notification. The only real potential risk would be a pipeline rupture and with it being buried and only three inches in diameter the chances of this happening are extremely remote. The deciding factors had nothing to do with costs between piping or trucking the concentrate. The deciding factors dealt with reduced impacts and safety.

17. *Don't have the tailings pond or pile near the Clark Fork River. Protect the water. (S3575)*

The unacceptable proximity of the tailings pile to the Clark Fork River should not be allowed. (S3896)

It is not too late to invite them back to the drawing board to relocate the tailings pond or research another manner of disposing their waste. In my opinion, this is exactly the next step agencies should investigate. (S1434)

Response: The proximity of Sterling's proposed tailings impoundment to the Clark Fork River (Alternative II) was evaluated by the Agencies. The Agencies developed a method of tailings deposition in Alternative V that addresses public comments and concerns related to seepage, stability, and potential impacts to surface and groundwater resources. Alternative V now includes deposition of tailings as a paste. This method of tailings deposition would result in a decrease in seepage to groundwater. Alternate tailings facility locations were investigated and then dismissed from further consideration due to potential impacts (see Chapter 2, Alternatives Considered but Dismissed).

18. *Page 2-93. The main reason that the conventional nitrification/denitrification treatment alternative was not considered, as given by this paragraph, is cost. Asarco should not be allowed to consider water treatment technology that remains unproved at this volume (passive biotreatment) simply because it would increase their profits. Asarco must assume financial responsibility for the safe operation of the project. The other reason this alternative was not considered is given as "... such treatment facilities are complex and may require multiple steps and high rate solids recycling and can be difficult to operate." Is complexity really a valid concern? Isn't mining a complex process with multiple steps? (S3462)*

Response: The passive biotreatment system is a component of Alternatives II-IV, but is not part of Alternative V, the preferred alternative. Conventional nitrification/denitrification was dismissed

from further consideration because the proposed wastewater treatment system could achieve the required nitrate removal with a less complex process.

19. The Agencies should develop an alternative that requires installation of a liner system to minimize seepage from the tailings impoundment and the groundwater quality degradation it causes. Lining the tailings impoundment is a "reasonable alternative" to the proposed design that will significantly reduce the environmental effects caused by operating the tailings impoundment.

State and federal guidelines, including those presented in the first Draft EIS, provide the Agencies with both the authority and directive to evaluate this alternative. (S6318)

Response: MEPA and NEPA require the Agencies create alternatives and/or mitigation measures to avoid, minimize, reduce, or mitigate potential impacts from a proposed action. A lined tailings facility was considered but dismissed as the liner was not necessary for compliance with water quality standards. A liner would potentially reduce the flow of seepage, but the tailings paste technology would achieve nearly the same reduction in seepage to less than 30 gpm over the entire tailings facility footprint. Nevertheless, under Alternative V, the technical panel would be required to re-evaluate the liner issue if field data collected for final design work or data collected from the evaluation audit indicated the potential for greater impacts than predicted in the final EIS. Any changes to the approved permit/plan of operations would require the appropriate level of MEPA/NEPA analysis.

NEPA-802 Cumulative Impacts

1. *The cumulative impacts of the proposed Rock Creek Mine, the permitted but inactive Troy Mine, the permitted but unconstructed Montanore Mine, and miscellaneous proposed activities such as the Wayup/Fourth of July and Bear Lakes access requests on the Cabinet-Yaak Ecosystem must be thoroughly analyzed. (S140)*

Page 2-99 A DEIS for the Wayup and Fourth of July Mines was released by the USFS in Sept. of 1997. No discussion relative to cumulative effects relating to those access requests to either the Montanore or Rock Creek mines was made in that document. In the Rock Creek DEIS and SEIS the cumulative effects discussion relative to Wayup and Fourth of July is also absent. There appears to be a very serious breach of NEPA in all of these documents. 40CFR 1501.7 (a)(5). (S614)

Response: The applicant has indicated that reactivating the Troy Mine would most likely be done in conjunction with the development of the Rock Creek Mine. Troy would most likely be used as a training ground for the miners needed to operate the Rock Creek Mine; however, there is no formal plan to tie the operation of the two mines together. The potential reactivation of the mine for the socioeconomic analysis was added to the reasonably foreseeable actions and cumulative impacts analysis. Montanore was included in the Chapter 2 reasonably foreseeable activities and in the cumulative impacts analyses in Chapter 4 in the draft and supplemental EISs; and the final EIS.

The proposed access across Forest Service lands to the Wayup and Fourth of July mines, and Bear Lakes has been added to the reasonably foreseeable activities in Chapter 2 and cumulative impacts relative to this have been included in the cumulative impacts analysis. This activity was proposed after the draft and supplemental EISs had been released and is now included. The EISs for these projects are cited in their descriptions in Chapter 2, Part IV, Description of Reasonably Foreseeable Activities and in Chapter 9, References Cited.

2. *DEIS p. 4-110, 4-101, SEIS p.4-109: This section on cumulative impacts in the area has been changed in tone and scope for the supplement. Previously, other mining operations had been the most important consideration in this cumulative analysis. Now, increased regional growth is the largest impact. Mention of the "proposed project has been completely omitted. How can this section address cumulative impacts in relation to this proposed project without considering the project itself? (S6342)(S3462)*

Response: This section was reorganized and expanded to cover a wider range of cumulative impacts. Increased regional growth is not the environmental impact but a cause of a variety of environmental impacts as are the Montanore Mine and timber sales. The remaining subsections address more specific types of impacts. The proposed project, Rock Creek project, is mentioned and included in analysis in each subsection in the cumulative impacts section on Biodiversity as well as for other resources in Chapter 4. All cumulative impacts analysis presented in the final EIS consider the proposal in conjunction with the reasonably foreseeable actions identified in Chapter 2 as described in Chapter 3 in the existing environment.

3. *Page 4-76, paragraph 5 – Asarco does not have any property along Bull River. Elsewhere in the area Asarco is not logging, and at this time has no plans for additional timber removal in the Rock Creek drainage. (S5)*

Response: This statement has been corrected in the final EIS.

4. *The importance of considering cumulative impacts is heightened because of the Kootenai's important role in the Cabinet-Yaak Ecosystem. The Forest contains habitat used by a number of sensitive species and five federally listed threatened or endangered species. The proposal alone, in any form, would significantly impact most of these species and their habitat. Rock Creek is an important tributary of the Bull River which feeds the Clark Fork River, ultimately flowing into Lake Pend Oreille. The proposal would significantly impact Rock Creek with impacts potentially extending throughout the entire watershed.*

The Forest Service must utilize the best science available to comprehensively analyze the cumulative impacts of this proposal and other actions on federal, state and private lands on the Kootenai's resources, and the implications these impacts have for the Cabinet-Yaak Ecosystem. (S161)(S2034)

Response: The analysis in Chapter 4 identifies the impacts to all segments that go into making up the watershed and beyond. This includes the discussions on cumulative impacts. The most current and best available science was used in the analyses. The cumulative effects of the proposed project on threatened and endangered species and sensitive species are included in Chapter 4 (Threatened and Endangered Species) and in the Biological Assessment (especially its Appendices 7 and 11). The bounds of the cumulative effects analysis for threatened and endangered terrestrial species are disclosed in Appendix 4 of the Biological Assessment.

5. *Cumulative impacts are largely ignored in these type of projects or they are acknowledged and dismissed. There does not appear to be a discussion in the SEIS of a plan to mitigate for cumulative effects. In some cases, cumulative impacts are not even acknowledged. Please explain the following statement on Pg. 4-109: "For species not discussed, cumulative effects would not be greater than the direct or indirect effects disclosed for each alternative." (S6312) (S2117)*

Page 2-96, last paragraph. Before we start to talk about "complement mitigation(s)" one should consider cumulative impacts for all these massive planning activities (projects). (S4832)(S4833)

Response: Cumulative impacts are described at the end of each resource section in Chapter 4. For certain species or resources there may be no cumulative impacts with regards to one or more of the reasonably foreseeable activities identified in Chapter 2. It is not that cumulative impacts are not being acknowledged but that the impacts do not get any greater than the analysis of the resource by itself. The agencies can only require mitigation for impacts directly caused by the project and not for cumulative impacts also caused by other activities beyond the control of the applicant.

6. *The following subject areas have not been adequately addressed and analyzed in the SDEIS for the cumulative effects to the Rock Creek ecosystem, the Clark Fork-Pend Oreille watershed, or the communities downstream of the project: Cumulative impacts from existing metals loading from the upper Clark Fork River to the lower River and Lake Pend Oreille, coupled with all discharges from the Rock Creek Mine; Cumulative impacts to bull trout from the Rock Creek Mine and the Noxon and Cabinet Gorge Dams, and the implications to both Idaho and Montana's bull trout recovery efforts; Cumulative impact of the Rock Creek Mine discharges to nutrient loading in the basin, to the Tri-State Implementation Plan and to restrictions on future development; Cumulative impacts to the Cabinet Mountains Wilderness and wildlife from the Rock Creek Mine and other proposed developments nearby. (S6312)*

Other reasonably foreseeable activities might also lead to cumulative impacts as identified in the SDEIS [p. 2-93-97 including conservation plans for bull trout, the Tri-State Implementation Councils proposed plans, TMDL allocations, relicensing of Noxon Rapids and Cabinet Gorge hydroelectric dams, timber sales, and highway improvements. According to the SDEIS, the cumulative effects of these potential measures and other activities (including Rock Creek) will be assessed in the NEPA documentation. This SDEIS is part of the NEPA documentation for Rock Creek, but does not appear to address cumulative impacts. (S188)

Response: In response to public comment, the number of reasonably foreseeable activities described in Chapter 2 has been expanded to include relicensing of Noxon and Cabinet Gorge dams, the Tri-

State Implementation Council's proposed management plans, total maximum daily load allocations for the Clark Fork River and Rock Creek, potential Forest Service salvage timber sales (none known to be proposed for the Rock Creek drainage), potential restart up of the Troy Mine, and reopening road access to three private mineral properties on the east side of the Cabinet Mountain Wilderness. These are all included in cumulative impacts analyses in Chapter 4 where appropriate for each resource.

7. Cumulative impacts have been inadequately addressed. In terms of socioeconomics, the proposed project combined with other nearby mining projects, Troy and Montanore, will result in a boom and bust scenario. A staged approach to mining the deposits over a longer period of time would offer sustained resource utilization and minimize the regional economies sensitivity to highly variable metals commodity prices. Sequencing is most logical approach from all environmental and socioeconomic standpoints other than maximization of profit to the proponent.

Although combining and sequencing the various mine operations has been considered but dismissed in the draft EIS, there is precedent for its reconsideration. For example, surface paste disposal is essentially a modification of the dry tailing disposal method considered but dismissed in the draft EIS [SDEIS p. 2-84]. Obviously the potential benefits of combining and sequencing, relative to both socioeconomic and environmental impacts that have not been adequately mitigated otherwise, equally warrant further investigation of this alternative. (S188)

Response: The paste disposal method was developed as a means of addressing some residual water quality concerns related to the tailings impoundments under Alternatives II to IV. The combined operations were described in the draft EIS but not included in the supplemental EIS because it had not changed nor did the agencies feel it was relevant to the reasons driving the need for a supplemental EIS. The combined operation is included in the final EIS in Chapter 2, Part III: Alternatives Considered but Dismissed.

Socioeconomic impacts do not typically drive development of an alternative. Economic impacts relative to hard rock mines and local government agencies are mitigated under the authority of the Hard Rock Impact Act and the required Hard Rock Impact plans. There are no laws requiring mitigation of social and economic impacts but the agencies must disclose those impacts under NEPA/MEPA. Under MEPA, "the agency (in this case DEQ) is required to consider only alternatives that are realistic, technologically available and that represent a course of action that bears a logical relationship to the proposal being evaluated"(ARM 17.4.603[2][b]). The combined operation may be technologically feasible and would meet the purpose and need of the proposal. But neither agency would have the authority to require compliance with such an alternative by either company. Montanore's permit has been issued and there is no reason to withdraw that approval. The agencies cannot force the two companies to reach an agreement to allow either the consecutive or the sequential mining and milling of the two ore bodies from the Montanore Mine side of the Cabinet Mountains. The cumulative impacts analysis in the socioeconomic section has been expanded to more fully discuss the cumulative impacts of both mines operation at the same time.

8. Page 2-97. "Although some of Noranda's ore body is less than 1 mile from ASARCO's, the surface facilities would be almost 7 miles apart." Why has the agency responsible for the Cabinet Mtns Wilderness not analyzed the potential cumulative affects of Noranda's and Asarco's proposals? (S3462)

Response: Cumulative effects analysis of both Noranda's and Sterling's proposals are included in Chapter 4 at the end of each resource section.

9. Page 4-58 *Cumulative Impacts: The increase of phosphorus loading from the Rock Creek discharge could minimally reduce these upstream efforts." This sounds like a taking." (S614)*

Response: The Tri-State Implementation Council has developed a Total Maximum Daily Load (TMDL) for the upper Clark Fork River basin (headwaters down to the confluence with the Flathead River). The Rock Creek Mine is not within the boundaries of the TMDL for Pend Oreille Lake and the Idaho portion of the Clark Fork River. After the Idaho TMDL is developed, the Tri-State Implementation Council would work with the two states to set a TMDL for the Montana/Idaho border, which would include any loading from the Rock Creek mine. The MPDES permit has a reopener provision which states that the permit may be reopened and modified to include appropriate effluent limitations if TMDL requirements or a waste load allocation is developed and approved by DEQ or the EPA.

10. Page 2-96 *No discussion has ensued throughout the document about the possibility of two mines operating simultaneously in the Cabinet Mountains Wilderness and their effects on the grizzly bear or bull trout recovery. However, under the relicensing of Noxon Rapids and Cabinet Gorge dams (pg.2-97) it states that "cumulative effects will be assessed in the NEPA documentation. This documentation absent in the DEIS and the SEIS does not lend itself to public scrutiny as defined under NEPA / CFR 1500.1 (b), 1508.7, 1501.7 (a)(5), 1502.1, 1508.7(in reference Wayup & 4th of July mine claims). (S614)*

Response: Reasonably Foreseeable Actions, and the Cumulative Effects section in Chapter 2 and 4 respectively include the above mentioned projects. Chapter 2 included the simultaneous operation of both Noranda and Cabinet Gorge relicensing. The impacts analysis for grizzly bears uses models that looks at cumulative impacts and the Montanore Mine is included in the model in the main analysis in Chapter 4, Threatened and Endangered Species and the Biological Assessment in Appendix B. The effects of the Noxon and Cabinet Gorge dams are included as part of the existing conditions and therefore it was determined relicensing would not change impacts with regards to grizzly bears. There are no cumulative impacts on bull trout relative to the Montanore Project since they are in completely separate watersheds separated by a mountain range. Cumulative impact with regards to the relicensing of the dams has been reviewed and expanded in the bull trout section under Threatened and Endangered Species in Chapter 4. However, without specific mitigation plans from Avista (formerly Washington Water Power), the cumulative impacts cannot be described in much detail. There are no expected cumulative impacts from the relicensing of the dams with regards to wildlife, terrestrial threatened and endangered species, and biodiversity.

40 CFR 1500.1(b) says that "the environmental information must be available to the public officials and citizens before decisions are made." No decision has been made and every effort is being made to address issues being raised by the comments on the draft and supplemental EISs prior to release of the final EIS. 40 CFR 1501.1(a)(5) requires that any relevant environmental assessments or EISs that have been or are being prepared be identified. There are no environmental documents directly related to Rock Creek such as that for exploration, but the draft and supplemental EISs do identify several projects where EISs are being or have been prepared for reasonably foreseeable projects. Those documents are cited if information has been taken from them to support or provide analysis for the Rock Creek Project. 40 CFR 1502.1 describes the general purpose of an EIS to "provide full and fair discussion of significant environmental impacts" so that the decision makers can make an informed decision. It also states that an EIS should "be concise, clear and to the point." The Rock Creek EIS provides a great deal of discussion on significant and less than significant impacts for numerous resources. Between the draft and the final EIS the discussions have been expanded for several resources to answer public comments so that the document complies with this regulation. 40 CFR 1508.7 defines cumulative impact. Cumulative impacts are described at the end of each

resource section in Chapter 4. Chapter 3 describes the baseline conditions which includes cumulative impacts in the past; Chapter 4 adds the reasonably foreseeable projects and the proposed action and alternatives. These sections have been revised to incorporate new projects that have been identified between the draft and final EISs as well as any that the agencies had missed and the public informed us about. The cumulative analysis for the access requests is covered for those resources affected (Biodiversity and Threatened and Endangered Species).

11. *Page 3-7, Mining History. This paragraph indicates the failure of the USFS to adhere to the tenets of NEPA. 40 CFR 1508.7, 1508.25 (a)(2), (3). (S614)*

Response: The comment suggests that other mineral activities in the vicinity of the Rock Creek Project need to be considered “cumulative actions” or “similar actions” and their cumulative effects must be disclosed. Past mineral activities in the vicinity of the Rock Creek Project have been included as part of the analysis and description of existing conditions, however no significant impacts are associated with these past activities. Noranda’s Montanore Project was approved and permitted in 1993. Both the Montanore and the Rock Creek final EISs consider potential cumulative effects of each other’s mine operations. The three small deposits that lie at the periphery of the Rock Creek deposit, which are claimed by Kennecott Exploration Company, were core drilled under approved plans of operation between the late 1970s and 1983. Although we are aware of these claims and past activities (which are part of the existing condition), there are no known foreseeable actions proposed on these claims. Should Kennecott propose surface disturbing activities on any or all of their claims the Forest Service would first determine whether Kennecott possesses valid rights to the deposits. If Kennecott could show that valid rights exist, the Kootenai National Forest and the State of Montana would jointly begin an environmental analysis, which would include an assessment of cumulative effects with other activities, including other mines proposed or previously approved and permitted.

12. *Page 4-19 para. 3, “Construction and operation of both mines would likely result in more...” This statement needs to be clarified. The Wayup and Fourth of July mines are patented claims. Does this statement mean that those claims would not be able to operate if Montanore and Rock Creek went on line. Or is the inverse true, using the example of water rights; first in time / mine, first in right? (S614)*

Response: The activity for the Wayup and Fourth of July mines is a matter of access to private lands through Forest Service lands, not proposed mining. In the Wayup/Fourth of July final EIS, the Forest Service analyzes foreseeable activities associated with mining on private lands. If the owners decide to mine, a mine application would have to be submitted to DEQ and go through the review and environmental impacts analysis process. Because the Biological Assessments for the Wayup and Fourth of July proposals were submitted to U.S. Fish and Wildlife Service before the Rock Creek project, they are not affected by the Rock Creek project. The Bear Lakes proposal, on the other hand, must consider the Rock Creek proposal as a cumulative impact.

13. *In addition, two proposals to build roads in roadless areas on the southeast face of the Cabinet Mountains, allowing access to historic mining claims on the wilderness boundary, and the proposed development of the Treasure Mountain ski area on the northeast wilderness boundary (near Libby) have not been adequately addressed in the SEIS.*

Clearly the development of these and other projects surrounding and within the wilderness boundary must be thoroughly and scientifically evaluated for cumulative impacts to this ecosystem, before any permit is granted. The section of the SEIS beginning on page 2-93 fails to provide the public with a description and evaluation of these impacts. (S6312)

Response: The proposed Treasure Mountain Ski area is too far away to have a cumulative impact with the Rock Creek Project. The proposed ski area, while in Cabinet-Yaak ecosystem, is in different Bear Management Units than are impacted by the Rock Creek project. In addition, its waters flow to the Kootenai and not the Clark Fork River. The Way-up, 4th of July and Bear Lakes properties and the access roads to those properties are part of the existing and historical conditions and have been disclosed in Chapter 2. However, the increased use of the previously closed roads to these properties could result in a cumulative impact relative to grizzly bears and possibly mountain goats as discussed in Biodiversity in Chapter 4. These roads are part of the baseline that was used in the modeling for impacts to grizzly bears and the impacts are discussed in Threatened and Endangered Species in Chapter 4 and the Biological Assessment in Appendix B; the change in use would not change the results.

14. The relicensing of the Cabinet Gorge and Noxon Dams --- This ongoing work includes considerable proposed mitigation for native trout, char, and other wildlife. All of that proposed work could be negated by degradation from this mining operation. This is not accounted for in your draft EIS. (S3 468)(S3 536)

Response: The specifics of Avista's (formerly Washington Water Power) plans for mitigation to fisheries and wildlife are not yet fully developed. Avista has conducted surveys on those creeks/streams which are tributary to their Noxon/Cabinet Gorge facilities. The surveys were to identify all manner of stream information including enhancement opportunities. Avista has not made public any proposals for stream enhancement work.

The applicant has on their own and in conjunction with Avista, inventoried Rock Creek. The Agencies in the EIS under Alternative V have required the mitigation of 400 tons of sediment, predominantly near Engle Creek. The rehabilitation work proposed in this EIS should not detract from any work to proposed by Avista for Rock Creek. The Rock Creek project will not degrade the creek. Please see Chapter 4, Hydrology and Aquatics/Fisheries for more detail.