## Letter 803, Comment 18

The DEIS's discussion of cumulative impacts fails to inform the public and decision-makers of the true likelihood and magnitude of such impacts. This failing results partially from the DEIS's analysis of artificially circumscribed cumulative effects study areas (CESAs) that ignore major projects barely outside the CESAs' borders but well within the range of cumulative impacts. Two other mines excluded from the analysis illustrate this failing. The Horse Canyon and Cortez Hills open pit gold mines in central Eureka County will employ hundreds—if not thousands—of workers, withdraw substantial quantities of groundwater, and generate air pollution within air basins adjacent to the proposed project. The DEIS also neglects to analyze likely projects, such as the solar development area in southern Eureka County, that are within certain CESAs and outside others. These projects will all affect water resources, air quality, and socioeconomic aspects of Eureka County, but the potential cumulative impacts remain unknown to both BLM and the public.
**Disposition**: Other (SEE RESPONSE)

## Response

CC-130- Cumulative effects analysis

## Letter 803, Comment 19

Financial assurance is an essential element that sto Project would consist of reclamation bonding and hould be disclosed in the DEIS because the viability of reclamation, closure and post-closure management is a critical factor in determining whether the project will be fully protective of environmental resources. This project is expected to adversely impact resources for at least 400 years, which is why long term, sustainable financial assurance is essential.

Financial assurance is critical to determining whether all commitments for proper closure, reclamation, post closure care, monitoring and contingency measures can be met by the applicant or its successor. We believe that the DEIS will be strengthened by analyzing these factors to determine the significance of potential impacts and the feasibility of long-term mitigation measures. BLM should require the applicant to provide adequate financial assurance that long term controls and post-closure management will be implemented when necessary during and after mine closure or cessation of mining at some earlier period not foreseeable, but possible, due to market conditions or technical issues. Without financial assurance, BLM and local residents could be left with the blight of a long term unfunded or underfunded liability in southern Eureka County.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-057-Funding for Reclamation/Closure Bond

## Letter 803, Comment 20

The County appreciates the progress that has been made in specifying the composition, creation, operation, and mandate of the mitigation advisory committee. Nonetheless, the text in ¶ 2.1.15 at page 2-70 still lacks the precision that meets the expectations of the County and federal regulatory agencies. The text should be revised to ensure that the underlined words are retained:
In addition to the monitoring requirements consistent with 43 CFR 3809.401(b)(4) and mitigation specified in the EIS for water resources, an advisory committee will be established, consistent with the requirements in FLPMA (43 USC 1712(c)(9)) and 43 CFR 1610.3-1(4), of "other Federal departments and agencies and of the States and local governments within which the lands are located" and "involvement of other Federal agencies, State and local government officials, both elected and appointed." This committee will include Eureka County.
The advisory committee will review and approve the water-related monitoring protocols, data, and reports, meet no less frequently than quarterly, and make recommendations to the BLM on operational changes or compliance issues.
The advisory committee will be established in the Record of Decision and be incorporated in Plan of Operations Approval.
We are also very concerned about the threshold outlined in the DEIS of "cessation of flow coincident with reduction in ground water" before any mitigation would be necessary. Cessation of flow at any water source would be a failure of the monitoring, management, and mitigation program.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-061-Mitigation Advisory Committee

## Letter 803, Comment 21

As summarized above and detailed in the pages to follow, the DEIS has not included at all the promised one-hour NO2 modeling, a water budget for the project and its mitigation, properly framed mechanics for monitoring, management and mitigation, an air quality baseline, and phreatophytic vegetation evaluation. The County suggests that BLM prepare a focused supplemental DEIS that includes these matters, and circulate that analysis for public comment confined to its contents. In that way, BLM will avoid preparation of a final EIS for which recirculation would then be required for a much lengthier public review.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

Revised modeling has been completed and incorporated into the FEIS including information regarding one-hour NO2. Water budgets are disclosed in Tables 3.2-11 and 3.2-12. The analysis of Project-related impacts to phreatophytes has been revised in the FEIS.

## Letter 803, Comment 22

Note to BLM: In most cases, BLM never provided specific response to our review and comment on baseline reports related to the Mt. Hope Project EIS and changes were not made in the DEIS to address these comments. We ask BLM to review our previous comments on the baseline reports, provide specific responses on these comments, and incorporate changes into the EIS to address outstanding issues.

**Disposition**: Comment acknowledged; does not provide new information

## Response

In accordance with the Memorandum of Understanding between the BLM and Eureka County, Eureka County had the opportunity to review and comment on drafts of the baseline reports. The BLM considered input from Eureka County in the development of these reports and in determining the adequacy of these reports for use in the EIS. Although not all of the Eureka County's suggestions were adopted, all comments were considered and the baseline reports have now been finalized.

## Letter 803, Comment 23

In our specific review of each section of the DEIS we make comments and request changes on the Proposed Action analysis. These also cascade through and apply to all discussions of the Partial Backfill Alternative, the Off-Site Transfer of Ore Concentrate for Processing Alternative, and the Slower, Longer Project Alternative. This is especially true where the impacts and descriptions are essentially the same for each alternative. Please make the same changes as requested under the Proposed Action of each section, where applicable; we did not repeat all of the comments made on the Proposed Action for the other alternative of each section.

**Disposition**: Analysis modified (SEE RESPONSE)

## Response

Revisions to address Eureka County comments have been incorporated into discussions on all of the alternatives as applicable in the FEIS.

## Letter 803, Comment 24

Analysis must be reworked throughout entire document to focus on avoidance or reduction of all adverse impacts related to the project regardless of BLM arbitrarily defined significance. Continuing to focus on only reduction of BLM defined impacts of significance undermines the intent of NEPA which is underscored in the BLM NEPA Handbook on p. 61 where it states, "Mitigation includes specific means, measures or practices that would reduce or eliminate effects of the proposed action or alternatives" and "Mitigation measures can be applied to reduce or eliminate adverse effects..." and further, "Mitigation may be used to reduce or avoid adverse impacts, whether or not they are significant in nature."

**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The FEIS has been revised to include a statement at the end of Section 3.1 that clarifies that the analysis is conducted to make a significance determination which does not preclude the identification of mitigation. The FEIS includes mitigation for impacts, whether or not they meet the established significance criteria. Impact text throughout the FEIS has been revised to clarify that development of mitigation is not triggered by whether or not the impact is significant.

## Letter 803, Comment 25

Interestingly, the BLM NEPA Handbook specifically and explicitly clarifies the meaning of "significance" as intended by NEPA and CEQ regulations. The NEPA Handbook in Section 7.3 (p. 70) clarifies that: "Whether an action must be analyzed in an EA or EIS depends upon determination of the significance of the effects" and continues, "Significance is defined as effects of sufficient context and intensity that an environmental impact statement is required. The CEQ regulations refer to both significant effects and significant issues (for example, 40 CFR 1502.2(b)). The meaning of significance should not be interpreted differently for issues than for effects: significant issues are those issues that are related to significant or potentially significant effects."

Any discussion of significance in the EIS is not justified or necessary and does not belong. Simply stated, since the Mt. Hope Project required analyses in an EIS, the BLM is obligated to require and ensure that any adverse impact identified has reasonable mitigation framed and committed. Please revise to disclose every potential impact and frame mitigation to address any identified impact.

**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-134- NEPA significance threshold and mitigation

## Letter 803, Comment 26

1.1 Page 1-1: The number of Plans of Operation (PoO) revisions is relevant and should be disclosed. This number (12 or 13?) informs the public about the extent to which the project has changed during the lengthy EIS process and still continues to evolve. Even as the DEIS has gone out for public review, another PoO revision is currently being drafted.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The EIS discloses when the original and most recent Plan of Operations was submitted. The number of revisions does not necessarily inform the public of the extent to which the Project has changed as the nature of the modifications vary substantially from minor language changes in the text of the Plan to actual design changes in response to changing conditions or new information.

## Letter 803, Comment 27

1.1 Page 1-1: Since there is a "potential the timing on the implementation or duration of components of the Project could vary," the EIS must describe how much latitude would be granted to EML in varying the timing of the Project's components. As the EIS reads now, the reader is left to guess at the variability that BLM might allow, which does little to disclose to and inform the public about what should be anticipated. This is especially necessary in light of both the large number of potential projects in the vicinity of southern Eureka County and the changes that a delay in the implementation of components of the Proposed Action would create for the conclusions currently drawn in this EIS regarding cumulative impacts and RFFA.
**Disposition**: Comment acknowledged; does not provide new information

## Response

Given the inherent variability in mineral deposits, there is always the potential for some degree of change to the timing or sequence of development. BLM regulations at 43 CFR 3809 have been developed to recognize this inherent variability in the ore deposits. As a result, implementation of the Project would include EML coordination with a BLM compliance officer (including site inspections), as well as EML preparation of annual disturbance reports and bond updates as required by 43 CFR 3809. Following Project implementation, the BLM may require supplemental NEPA for the Project if there is a change in the Project design and/or major changes in the environment. Additionally, EML has agreed to provide periodic updates on Project progress to Eureka County so they will be aware of any variations from the currently proposed project schedule. No change has been made to the FEIS in response to this comment.

## Letter 803, Comment 28

1.1 Page 1-2: The paragraph that outlines the purposes of an EIS should be amended to include a statement about the EIS's examination of mitigation measures.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The EIS states that the "purposes of an EIS are as follows: a) to analyze potential impacts from the Project based on the Proposed Action; b) to identify reasonable alternatives; c) to inform the public about the Project; d) to solicit public comment on the Project and alternatives; and e) to provide agency decision makers with adequate information upon which to base the decision to approve or deny the Project or an alternative development scenario." "Adequate information" includes, but is not limited to, mitigation; therefore, no change has been made in the FEIS in response to this comment.

## Letter 803, Comment 29

1.1 Page 1-2: We question whether the DEIS "is prepared in compliance with NEPA" and various other BLM regulations, as well as CEQ's regulations. We have continued to point out to BLM that many of these regulations require coordination with Eureka County and efforts to achieve consistency with Eureka County plans and policies to the maximum extent possible. Despite our continual requests, however, the DEIS makes no effort to discuss these inconsistencies. This paragraph can legitimately claim that the EIS complies with NEPA only when BLM has taken the maximum effort to reconcile these conflicts. We will continue to point out these specific areas again in the comments that follow.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-131- NEPA compliance with Eureka County

## Letter 803, Comment 30

1.5.1 Page 1-8: The RMP states that one of its objectives is to "[m]ake available and encourage development of minerals to meet national, regional, and local needs consistent with national objectives for an adequate supply of minerals." The EIS, though, does not explain how this Project will conform to the RMP by meeting national, regional, or local needs. In reality, the Proposed Action cannot conform to the RMP because, as proposed, it does not meet local needs and cannot possibly meet regional or national mineral needs when nearly all of the extracted Mo (100% of all production in the first five years and 100% of the production currently accounted for in contracts for the second five years) will go overseas.

**Disposition**: Not within document/decision scope (SEE RESPONSE)

## Response

The final destination of molybdenum mined from the project is outside the scope of analysis in the FEIS. No change has been made in the FEIS in response to this comment.

## Letter 803, Comment 31

1.5.1 Page 1-9: To conform to the RMP, the Proposed Action must have "minimal environmental disturbance..." and we contend that the EIS has overlooked or disregarded many measures that would minimize "environmental disturbance." We have highlighted these measures repeatedly to the Proponent and BLM over the past few years and underscore them again here in our comments on the DEIS, especially as they relate to alternatives analyzed and mitigation measures outlined.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The regulatory standard for the Project is based on the regulations at 43 CFR 3809. The BLM has reviewed the Plan of Operations and determined that it is in compliance with the requirements under 43 CFR 3809, which uses an unnecessary or undue degradation standard. This standard allows for disturbance and activities inherent and reasonably incident to mining.

## Letter 803, Comment 32

1.5.4 Page 1-10: We asked BLM to revise this section on both ADEIS with inclusion of language to read, "Some elements of the Proposed Action would be in conformance with these plans and policies while other elements of the proposed mine could prove inconsistent with these plans and policies." BLM's response was that "Based on a review of the County Plan, no specific instances of non-conformance were identified." BLM inaccurately cites general County policy support of mining and economic development in a vacuum without taking into account all other plans, goals, and policies as a whole related to impacts on air quality, wildlife, water resources, private property, grazing, etc. Eureka County specifically pointed out these inconsistencies in our previous comments. Again, we highlight the following policies, word-for-word, that components of the Proposed Action are in conflict with including, "use of the best available science and technology to ensure adequate protection of land, air, and water resources ...[including]... adequate and proper mitigation; maintaining water resources in a condition that will render it useable by future generations for the full range of beneficial uses that further a viable and stable economic and social base for its citizens; maintain or improve soil, vegetation and watershed resources in a manner that perpetuates and sustains a diversity of uses while fully supporting the custom, culture, economic stability and viability of Eureka County and our individual citizens; mitigation of mining activities that may impair the economic future of Eureka County citizens; prevention of significant deterioration of the superior air quality found in Eureka County; and maintain, improve or mitigate...impacts to habitat in order to sustain viable and harvestable populations of...species as well as wetland/riparian habitat for...other game and non-game species." BLM can only say that the EIS is in compliance when the maximum effort has been made by BLM to work with Eureka County, the guardian of its own policies, to reconcile these conflicts.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-131- NEPA compliance with Eureka County

## Letter 803, Comment 33

1.7 Page 1-12: One concern voiced by local residents was that BLM did little to inform southern Eureka County residents of the Mt. Hope Project during the scoping period. As highlighted in this paragraph, the Eureka Sentinel (the County's paper of record) was not included as a source for publishing announcements of scoping meetings. For future projects within Eureka County, please ensure that notices are published in the Eureka Sentinel so that those residents who are not on BLM's "interested public" lists are properly informed.
**Disposition**: Comment acknowledged; does not provide new information

## Response

Comment noted. Public participation for this Project is outlined in Section 5.1 of the EIS.

## Letter 803, Comment 34

2.1 Page 2-1: 43 CFR 3809.401 requires much more than is outlined here. In fact, many of the specific items that Eureka County has continued to request are required for reclamation plans by 43 CFR 3809.401. Specifically missing are riparian mitigation (43 CFR 3809.401(b)(3)(iv)), wildlife habitat rehabilitation (43 CFR 3809.401(b)(3)(v)), and re-vegetation (especially related to phreatophytes) (43 CFR 3809.401(b)(3)(vii)). Additionally, 43 CFR 3809.401(b)(4) requires that monitoring plans include "type and location of monitoring devices, sampling parameters and frequency, analytical methods, reporting procedures, and procedures to respond to adverse monitoring results" and "monitoring programs which may be necessary include...air quality, re-vegetation...noise levels..." EML's proposed monitoring plans, in many cases, fail to include "sampling parameters and frequency, analytical methods, reporting procedures, and procedures to respond to adverse monitoring results." This is particularly the case for fugitive dust (air quality) resulting in phreatophyte die-off, re-vegetation plans, and noise levels. In fact, there are not even plans for re-vegetation or for

monitoring noise and air quality outside of the mine site. BLM must ensure that these missing plans are included in the PoO and adequately analyzed in the EIS.
**Disposition**: Other (SEE RESPONSE)

## Response

The Plan meets the requirements of the 3809 regulations and has been determined by the BLM in September 2007 to be complete and adequate for evaluation under the NEPA. Additionally, monitoring and mitigation is identified in the FEIS on a resource-by-resource basis. No change has been in the FEIS in response to this comment.

## Letter 803, Comment 35

2.1 Page 2-1: The EIS reports "approximately 1.1 billion pounds of recoverable Mo," but General Moly consistently reports in public presentations (many available on their website) 1.3 billion pounds of recoverable Mo. Also, both previous ADEIS had language reporting 1.3 billion pounds. Please explain why this discrepancy exists.
**Disposition**: Other (SEE RESPONSE)

## Response

There are 1.3 billion pounds of "contained" Mo and 1.1 billion pounds of "recoverable" molybdenum, based on a recovery of approximately 85 percent. The EIS accurately states that the ore body would "produce approximately 1.1 billion pounds of recoverable Mo".

## Letter 803, Comment 36

2.1.1 Page 2-4: The EIS states that "up to 2.7 billion tons" of ore and waste rock would be excavated whereas the ADEIS previously mentioned "up to 2,708 million tons" and later on in this DEIS the figure of "2,708" is used. The figure of 2,708 million tons is more than 2.7 billion tons. We made this comment on the previous ADEIS. BLM's response that only one significant digit is used does not get to the heart of the issue. If BLM is going to continue to use "up to," then it will have to ensure that no more than 2.7 billion tons are excavated. Using only one significant digit with such huge numbers understates or ignores the scope and scale of certain elements of the project. We propose that final numbers in the EIS should be reported in millions rather than billions to overcome this issue (e.g. 2,708 million vs. 2.7 billion).
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

The text in the FEIS has been revised to read "approximately 2.7 billion tons" rather than "up to 2.7 billion tons".

## Letter 803, Comment 37

2.1.1 Page 2-4¬¬: Please explain why "... some in-pit waste rock disposal of non-PAG may be conducted" or would be necessary.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The FEIS has been revised to include the following language in Section 2.1.1, "This may be done as a temporary measure during development of the mine when mining and preparation of WRDFs are occurring simultaneously. At this time waste rock produced from the pit may be placed within the pit to allow continued pit development and later placement of this waste rock in the developed WRDF. Temporary placement of waste would not exceed 12 months. In addition, in-pit disposal may become economically preferable during the later stages of mine development when portions of the pit have been mined to the full design extent. Permanent placement of waste rock in the mined out areas would be limited to Non-PAG waste rock."

## Letter 803, Comment 38

2.1.1 Page 2-4: Please define the range of years for early, middle, and end of project life, referred to in on page 2-4 and in the referenced figures that follow.
**Disposition**: Other (SEE RESPONSE)

## Response

The reader of the FEIS should consider that Figures 2.1.1 through 2.1.6 have been prepared to represent stages of development and should not be assumed to represent any specific point in mine life. Based on the 44-year mine life, the figures representing early stages in mining can be assumed to cover years 2 through 12, the figures representing the mid-stages in mining can be assumed to cover years 13 through 35, and the figures representing the late stages in mining can be assumed to cover years 36 through 44.

## Letter 803, Comment 39

2.1.2 Page 2-17: Insert language to clarify that 11,300 afa of water is required from the wellfield alone. This paragraph's current phrasing makes it appear that only 7000 gpm of "process water" will be in the system. In reality, process water encompasses all components listed (e.g., wellfield, TSF, runoff...) and is much more that 11,300 afa. Please revise to report the average amount of water that will be in the process stream at any given time.

**Disposition**: Factual correction made (SEE RESPONSE)

## Response

CC-021-Water Development Plan

## Letter 803, Comment 40

2.1.2.1 Page 2-17: The sentence that ends "if water is found to be in surplus" is confusing and inaccurate. Water can never be "in surplus," but various water sources within the mine's processing operation (tailings, WRDF, runoff, etc.) may provide periods of more water return to the system. Perhaps this sentence could read: "Pumping from the wellfield would be reduced if water from other components of the processing operation provides enough water for processing to allow for decreased pumping in the wellfield."
**Disposition**: Other (SEE RESPONSE)

## Response

The third sentence in the first paragraph of Section 2.1.2.1 of the FEIS has been deleted and replaced with, "Pumping from the wellfield would be reduced if water from other sources provided enough water for processing and other water requirements to allow for decreased pumping in the wellfield."

## Letter 803, Comment 41

2.1.2.1 Page 2-18: If there is a change in the number or location of wells, Eureka County requests that BLM properly coordinate with the County on what would be considered "an appropriate level of environmental review under NEPA."
**Disposition**: Comment acknowledged; does not provide new information

## Response

Comment noted.

## Letter 803, Comment 42

2.1.2.2 Page 2-18: This paragraph still does not read correctly. It reads as if BLM definitively knows the source of water from dewatering simply based on the geographical configuration of the pit. BLM must amend this paragraph to clarify that dewatering wells are sited in and water is extracted from these wells in both Kobeh and Diamond Valleys. However, the water modeling shows that water flowing to the pit also comes from Pine Valley. Therefore, the locations of the extraction wells are not necessarily coincident with the origins of the water flowing into the pit. The EIS needs to make very clear that some of the water flowing into the pit originates in Pine Valley.
**Disposition**: Other (SEE RESPONSE)

## Response

The description of pit dewatering in the FEIS is consistent with commonly used water supply descriptions. For example, some ground water flows between Kobeh Valley and Diamond Valley, yet acceptable practice is to state that wells in Diamond Valley derive water from that basin although the "origins" of that water may be in another basin. Refer to Sections 3.2 and 3.3 in the FEIS for additional details regarding water resources. No change has been made in the FEIS in response to this comment.

## Letter 803, Comment 43

2.1.2.2 Page 2-23: No changes occurred based on our previous comments about this paragraph in the ADEIS. The paragraph reads as if the pit area will be totally dewatered before mining takes place. Insert "and during" to read "EML would conduct dewatering in advance of and during mining and the..."
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

The first sentence in the second paragraph of Section 2.1.2.2 in the FEIS has been deleted and replaced with the following text, "Active mine dewatering may not be initiated for several years as inflows during this period may be quite small. Dewatering would proceed throughout mining to ensure that mining would not be negatively affected by groundwater inflows. Pit inflows would be managed by in-pit sumps exacavated on an as-needed basis."

## Letter 803, Comment 44

2.1.3 Page 2-23: Using more than one significant digit by reporting "0.45 billion tons" underscores how reporting of 2 or 3 significant digits for such large amounts is important. For consistency, 2 or 3 significant digits should be used in all reporting of amounts in billions since each increased usage of one significant digit is ten million pounds—a very large amount that should be disclosed. See previous comment from pg. 2-4 regarding same issue where BLM's previous response was that only 1 significant digit is used but makes little sense and is arbitrary. Also, please review BLM response to previous ADEIS comment 1544 to understand why it is important to include more than one significant digit when reporting such massive amounts.
**Disposition**: Other (SEE RESPONSE)

## Response

It is standard scientific practice to use a specific number of significant digits depending on the accuracy of the data reported; therefore, uniformity throughout the EIS is not required. Additionally, the BLM has determined that the accuracy of the figures in the FEIS is appropriate for the level of analysis.

## Letter 803, Comment 45

2.1.3.1.2 Page 2-24: Is the quality of the water flowing from the spring through the foundation drain into a natural drainage going to be impacted by contact with the non-PAG? We do not see anything describing that this analysis was completed. Please include.
**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-027-Spring Drain

## Letter 803, Comment 46

2.1.3.2.2 Page 2-36: We are concerned with the possibility of waste rock being segregated primarily based on model predictions. Statements and commitments must be made by both BLM and EML that management of waste rock will always err on the side of caution and every step taken to ensure that PAG is properly managed according to extremely tight confidence intervals on real data—not primarily on modeling. Please revise to commit that waste rock segregation be based primarily on continued collection of the waste rock characteristics and only supplemented by model predictions. There should be no short-cuts taken when handling waste rock that could be PAG.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

CC-074-Visual Inspections of Waste Rock

## Letter 803, Comment 47

2.1.5 Page 2-37: Sentence reads "...depending on mill grade and mineralogy." Mineralogy is the study of minerals and should have no bearing on recent Mo recovery. Change "mineralogy" to "mineral characteristics" or something similar.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

The third sentence in the third paragraph in Section 2.1.5 in the FEIS has been revised to read, "...depending on mill feed grade and mineral characteristics."

## Letter 803, Comment 48

2.1.5.5 Page 2-42: The DEIS does not indicate that the slag will undergo any characterization or testing, and as a result, the DEIS does not adequately analyze the potential impacts of disposing of incorrectly characterized waste in a Class III landfill.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

The following text has been added to the last paragraph in Section 2.1.5 in the FEIS, "Prior to disposal in a Class III landfill, EML would characterize the slag, as required by applicable NDEP and EPA regulations."

## Letter 803, Comment 49

2.1.6 Page 2-45: Change sentence from "The North TSF would be constructed before the South TSF..." to "Construction of the North TSF would begin before the South TSF..." The way it reads now is that the N TSF would reach capacity (fully constructed) before the S TSF reaches full capacity.
**Disposition**: Other (SEE RESPONSE)

## Response

The DEIS correctly states that the North TSF would be constructed prior to the South TSF reaching full capcacity. No change has been made in the FEIS in response to this comment.

## Letter 803, Comment 50

2.1.6 Page 2-45: We believe permeability should read "1 x 10-6" rather than just 10-6 (or 10-7).
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

The text in Section 2.1.6 of the FEIS has been revised to read "1 x 10-6" to be consistent with other values in this section.

## Letter 803, Comment 51

2.1.6 Page 2-45: This paragraph should give the final factors of safety that were a result of the stability analyses. The paragraph outlines when a facility is considered stable (i.e., > 1) but then falls short in disclosing what the final computed values were.
**Disposition**: Already addressed in planning documents

## Response

Appendix 2 of the Plan of Operations provides the stability analyses. This level of detail is not required to analyze the impacts from the Project. Details regarding engineering design are available in the Plan of Operations, which is available for review at the Battle Mountain BLM office. No changes have been made in the FEIS in response to this comment.

## Letter 803, Comment 52

2.1.7.2 Page 2-55: The statement that the Machacek Substation is "located approximately 2.5 miles from the Town of Eureka" is incorrect. The Machacek Substation is located less than 0.5 miles north of the current Eureka Townsite boundary.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

The third sentence in Section 2.1.7.2 in the FEIS has been revised to read as follows, "The proposed powerline would originate at Mt. Wheeler's Machacek Substation, located approximately 0.5 mile north of the Eureka Townsite boundary."

## Letter 803, Comment 53

2.1.7.6 Page 2-59: In addition to wild horses, it needs to be clearly stated what would be done if cattle enter the project area. We proposed on both previous ADEIS that it be required that EML contact and coordinate with cattle owners to remove the cattle and ensured that cattle are not harassed.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

Section 2.1.7.6 of the FEIS has been revised to include the following text, "In the event that cattle enter the fenced area, EML would attempt to identify the brand and contact the owner. If the brand could not be identified, EML would notify grazing permittees adjacent to the project. EML would assist in moving these animals out of the fenced portion of the proposed Project Area and would not harass these animals."

## Letter 803, Comment 54

2.1.9 Page 2-60: Our position has not changed since we commented on this on both previous ADEIS. If EML is unwilling to commit to work with locals and NDOT on determining if a wash station is needed, the BLM should require it as a mitigation measure. Leaving it totally up to EML to "determine the need for a vehicle wash" in order to minimize mud tracked onto the highway may end in another situation where local concerns and needs are at odds with what EML is willing to do. Please consider the number of complaints that currently are provided by locals with regards to the dirt/mud tracked onto Hwy 50 from the Ruby Hill mine road. Locals don't appreciate the chipped windows and vehicle mud splatters that occur at these locations where traffic travels at 70 mph. This should be avoided at the Mt. Hope access to SR 278.
**Disposition**: Other (SEE RESPONSE)

## Response

Section 2.1.9 of the EIS has been revised to include the following text, "EML would install a vehicle wash to reduce the amount of mud and dirt that would be tracked onto Highway 278 if, in cooperation with Eureka County, area residents and Nevada Department of Transportation, if it is determined to be necessary."

## Letter 803, Comment 55

2.1.10 Page 2-60: EML needs to have the agreements with Eureka County fire and EMS well before the ROD is issued and construction commences. The fact that EML has not yet pursued these agreements is of concern to Eureka County, and BLM should also be aware that no agreements are in place and call for this to take place before the ROD.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

The sentence that reads, "EML would have agreements with the Eureka County Fire and Ambulance Service to provide assistance" has been revised in the FEIS to read as follows, "EML intends to have agreements with the Eureka County Fire and Ambulance Service regarding mutual assistance, and has initiated discussions with this entity regarding emergency response cooperation."

## Letter 803, Comment 56

2.1.11 Page 2-60: This section is supposed to speak of chemical use and management but fails to report use of chemicals that will not be stored on site. For example, there is no mention of pesticides for weed and or rodent control. These chemicals must be included.
**Disposition**: Other (SEE RESPONSE)

## Response

The specific chemicals that may be used for weed or rodent control have not been determined, as they are selected based on need, and these needs have not been determined. Section 2.1.11 of the EIS lists specific chemicals and also explains that small amounts of other potentially hazardous materials will be periodically located on-site. This section further states that these materials will be stored in accordance with applicable regulations and safe practices.

## Letter 803, Comment 57

2.1.11.1 Page 2-61: Although we understand that pesticides will not be stored on site, there will be use and transport of pesticides to the project area and possibilities of contractors needing to store these pesticides on-site for a few days as multi-day weed spraying contracts are carried out. This needs to be disclosed.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

CC-085-Preventive Weed Control Mitigation

## Letter 803, Comment 58

2.1.11.3 Page 2-63: Previous ADEIS spoke to disposal of office trash at the Eureka landfill, although we understand that this is no longer in the Plan. Eureka County has implemented a recycling program and we appreciate that the EML office in Eureka currently participates in our program. We ask BLM to require incorporation of the facilities at the mine site in our recycling program rather than simply allowing disposal of trash that is accepted for recycling into a landfill.
**Disposition**: Not within document/decision scope (SEE RESPONSE)

## Response

This request is outside the scope of the NEPA document and outside the scope of BLM authority. No change in the FEIS has been made in response to this comment.

## Letter 803, Comment 59

2.1.13 Page 2-65: BLM previously committed to adding a column to the table to include the peak labor force which according to the baseline analyses will be over 600 people. The column that speaks of the average labor personnel requirements during construction fails to take into account the construction workers themselves. The DEIS baseline studies estimate peak populations directly tied to the mine during the construction phase to be roughly 1000 people--a huge discrepancy from what is reported in Table 2.1-6. At a minimum, the table should match the description in the paragraph on pg. 2-64 and include the construction work force "of 615 personnel."
**Disposition**: Other (SEE RESPONSE)

## Response

The Plan of Operations states the maximum number of anticipated construction personnel, and Table 2.1-6 in the EIS depicts the number of operations employees by work area. See Figures 3.17.2 and 3.17.3, for further details regarding the personnel requirements. No change has been made to the FEIS in response to this comment.

## Letter 803, Comment 60

2.1.14 Page 2-65: Please add an Operational Performance Standard that requires re-establishment of vegetation in areas where water pumping has created phreatophyte die-off and increased surfaces for wind erosion and subsequent fugitive dust. Currently, there is only a commitment for directly disturbed areas, and fugitive dust control in the wellfield is not even addressed.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-020- Impacts to Phreatophytes

## Letter 803, Comment 61

2.1.14.4 Page 2-66: Define stakeholders in the context of the water resources monitoring plan.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

Section 2.1.14.4 of the FEIS has been revised to include the following text, "For the purposes of this section, stakeholders are defined as agencies with regulatory authority and parties with an interest in technical evaluation of the proposed operations. EML recognizes that this could potentially encompass a large number of parties, and is committed to making ongoing evaluations available for public review within the constraints of efficient completion of such updates."

## Letter 803, Comment 62

2.1.14.7 Page 2-68: The bulk of weed control in the County on public and private land is accomplished through the County Department of Natural Resources and the Diamond Valley Weed Control District in coordination with the BLM on public land. Eureka County and the Weed District must be coordinated with and included as part of the weed monitoring and control plan. Please make this clear.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

Section 2.2 of the Noxious Weed Plan, which is included as Appendix 13 of the Plan of Operations, has been modified to read "Coordination with the BLM, Eureka County Natural Resources/Diamond Valley Weed Control District, and others that are active in weed control/management...". No change has been made to the FEIS in response to this comment.

## Letter 803, Comment 63

2.1.15 Page 2-70: Based on our previous comments, Section 2.1.15 must be re-written to commit these measures into the ROD, not develop them "subsequent to the ROD." The text should be revised to ensure that the underlined words are retained:
In addition to the monitoring requirements consistent with 43 CFR 3809.401(b)(4) and mitigation specified in the EIS for water resources, an advisory committee will be established, consistent with the requirements in FLPMA (43 USC 1712(c)(9)) and 43 CFR 1610.3-1(4), of "other Federal departments and agencies and of the States and local governments within which the lands are located" and "involvement of other Federal agencies, State and local government officials, both elected and appointed." This committee will include Eureka County.
The advisory committee will review and approve the water-related monitoring protocols, data, and reports, meet no less frequently than quarterly, and make recommendations to the BLM on operational changes or compliance issues.
The advisory committee will be established in the Record of Decision and be incorporated in Plan of Operations Approval.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-061-Mitigation Advisory Committee

## Letter 803, Comment 64

2.1.16 Page 2-71: Language should be included to make it clear that adequate funding would also need to be in place for continued monitoring far into the future, especially related to water resources and the centuries of potential impacts after mining and reclamation.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

A new fourth order sub-heading has been added after the second paragraph in Section 2.1.16. This new sub-section is titled, "Post-Closure Monitoring and Maintenance" and reads as follows, "EML would create a Long-term Funding Mechanism (LTFM) for the BLM to assure completion of long-term post-closure monitoring and mitigation obligations (after reclamation and financial guarantee release) of EML for the Project. The LTFM would be reviewed annually during the operation phase of the Project and potentially increased to meet the monitoring and mitigation needs associated with the Project. There is a potential for additional monitoring and maintenance tasks to be required beyond the 30-year post-closure timeline that is currently included in the reclamation cost estimate. Financial assurance for these tasks would be provided outside of the reclamation bond by means of a LTFM. The specifics of the LTFM and the amount of the assurance needed would be determined in cooperation with the BLM. The tasks to be covered by the LTFM include the following: maintenance of pit perimeter fencing; water quality monitoring of the pit lake, draindown from the PAG WRDF and draindown from the TSFs; and maintenance of ET cells that would be constructed to manage long-term draindown from the TSF. Treatment of the pit lake water, the PAG WRDF draindown, or the TSF draindown are not included because studies have indicated that there is no potential for any of these solutions to degrade water quality or otherwise present an environmental risk. Monitoring during operations and the 30-year closure period would be covered in the reclamation bond, and if information collected during this period indicates the need, the LTFM would be adjusted to include treatment. Maintenance of ET cells that would be constructed to manage long-term draindown from the TSFs could include replacing the backfill. However, the ET cells would be designed simply to provide containment of draindown solution as it evaporates and backfill that would function as growth media for vegetation. Over long time periods, salts in the draindown solution that precipitate within the backfill could completely occupy the media pore space, affecting the viability of vegetation. The ET cells would continue to provide containment by means of its synthetic liner, and solution draindowns would decrease over time, reducing the amount of solution volume that would need to be contained. However, as a conservative measure, costs for ET cell maintenance would be included in the LTFM established as part of this Project. As stated previously, the maintenance specifics and costs would be determined in cooperation with the BLM."

## Letter 803, Comment 65

2.1.16.2 Page 2-71: Please add language to address re-vegetation in areas where water pumping has created phreatophyte, riparian vegetation, or salt-desert shrubland vegetation shifts or die-offs. Currently, there is only discussion for directly disturbed areas. Re-vegetation (including weed control) related to wellfield pumping is not adequately addressed or incorporated. Currently, neither the

Proposed Action nor mitigation measures in the EIS include analysis and discussion on what seed mixes, soil amendments, nor reclamation measures would be successful in re-vegetating these areas.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-020- Impacts to Phreatophytes

## Letter 803, Comment 66

2.1.16.4 Page 2-75: Neither the text nor tables 2.1-8 and 2.1-9 describe what would be required for re-vegetation in salt desert shrub soils, the possible impacts on these ecological sites, nor the BLM seed mix that would be needed for these sites. Regardless of indirect impacts of wellfield pumping to vegetation in these areas, the Proposed Action will result in direct disturbance to these salt-desert shrub areas in the powerline ROW and the wellfield corridor. None of the seed mixes will work in these areas. The tables only describe seed mixes according to elevation, not ecological site. Many, if not the bulk, of the proposed plant seeds in the Tables would not, or cannot, grow in the soils and conditions of these sites. The EIS should include analysis and discussion on the specific seed mixes, soil amendments, and reclamation measures necessary to successfully re-vegetate these salt-desert shrubland areas.
**Disposition**: Already addressed in planning documents

## Response

The seed mix in Table 2.1-9 of the EIS includes a number of species (such as fourwing saltbush and spiny hopsage) that are considered successful in revegetation seed mixes for salt desert scrub vegetation communities. As stated in the EIS in Section 2.1.16.2, "The proposed seed mixture and application rates would be subject to modification by the BLM. The actual seed mixture and application rates would be determined prior to seeding based on the results of reclamation in other areas of the mine, concurrent reclamation, revegetation test plots, or changes by the BLM in its seed mixture requirements."

## Letter 803, Comment 67

2.1.16.5 Page 2-76: Text states, "where feasible, large constructed topographic features such as the WRDFs and TSFs may (emphasis added) have rounded crests and variable slope angles to resemble natural landforms." One of the stated BLM goals is to "mimic surrounding regional landscape vegetation and non-vegetative component patterns" (2.1.16.4, p 2-072). The area between Garden Pass and Diamond Valley is considered to be visual Class III. In addition, portions of the Project Area are Class II due to the presence of the Pony Express trail. It states on p 3-557 that "The Proposed Action is not consistent with the visual Class II threshold associated with the Pony Express trail." The reclaimed non-PAG WRDF (p 3-309, Fig 3.7.3d) shows very little attempt to fulfill BLM goals for reclamation even for a Class III designation. Section 2.1.16.5 should include stronger language to require mitigation of visual impacts after mining is completed to the maximum extent possible. Please change the "may" to "will."
**Disposition**: Other (SEE RESPONSE)

## Response

Figure 3.7.3d in the EIS is merely a simulation and cannot be expected to capture all the details or subtleties of the proposed reclamation. The BLM considered visual values and made sure that reasonable attempts to meet the VRM objectives and minimize the visual impacts were incorporated into the Project design as part of reclamation. As part of reclamation, long-term visual effects of the Project would be minimized through recontouring and revegetation (Section 2.1.16.5).

Additionally, the assignment of visual resource management classes is ultimately based on management decisions made in RMPs. Inventory classes are informational in nature and provide the basis for considering visual values in the RMP process. They do not establish management direction and should not be used as a basis for constraining or limiting surface disturbing activities.

## Letter 803, Comment 68

2.1.16.6.3 Page 2-79: We cannot discern what the white area inside the pit depicts on Figure 2.1.18. Please clarify.
**Disposition**: Other (SEE RESPONSE)

## Response

Figure 2.1.18 illustrates the post mining topography (year 80 and beyond). As indicated in the figure's explanation, the white area inside the pit is a depiction of private property. No change has been made in the FEIS in response to this comment.

## Letter 803, Comment 69

2.1.16.8.4 Page 2-84: Please add language to acknowledge that there may be options for avoiding the waste of water in 44 years associated with TSF draindown such as the potential for filtering and/or reinjection of TSF fluids, if the technology exists. This is a tremendous amount of water that should be salvaged if possible.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

The FEIS has been revised to include the following sentence at the end of the last paragraph in Section 2.1.16.8.4, "EML would explore and evaluate the technical and regulatory feasibility of recycling, injecting, discharging, or otherwise using the water stored in the tailings pond at the end of the Project life to prevent the potential waste of this resource, as opposed to disposal by evaporation."

## Letter 803, Comment 70

2.1.16.9 Page 2-85: If the growth media applied onto the TSF (and possibly the WRDFs) is to be only 12 inches deep, the feasible vegetation options will be limited. This holds especially true for the TSFs that after draindown become hard and crusted. This may inhibit the penetration and expansion of roots past the top 12 inches of topsoil. Also, most shrubs (and other woody species), including sagebrush and bitterbrush, have long taproots that are critical to their vigor and these species may not be able to survive or thrive due to shallow topsoil conditions. Please acknowledge this and make it clear that reclamation may result in vegetative communities that may be able to support only limited or no, shrub and woodland species.
**Disposition**: Other (SEE RESPONSE)

## Response

Industry experience indicates that a layer of growth media as thin as a few inches will provide conditions conducive to seed germination and successful revegetation. Nevada typically has thin or poorly developed soils and the native species have evolved to thrive in these conditions. However, the TSF is an engineered design and 12 inches of material will be used to construct the soil liner containment underneath the TSF. As stated in section 2.1.16.8.3, the TSF surface will be nearly flat to create an artificial playa and will be covered with an 18-inch layer of growth media. The remaining tailings impoundment surfaces (outside of the playa footprint) would be covered with a 24-inch layer of growth media placed on a stabilized tailings surface. No change has been made in the FEIS in response to this comment.

## Letter 803, Comment 71

2.1.16.14 Page 2-86: Please add "and Natural Resources and Federal or State Land Use Plan" so it would now read "...conformance with Eureka County's Economic Development Plan and Natural Resources and Federal or State Land Use Plan."
**Disposition**: Other (SEE RESPONSE)

## Response

The text in the DEIS acknowledges conformance with applicable regulations and authorities; therefore, no change has been made in the FEIS in response to this comment.

## Letter 803, Comment 72

2.2 Page 2-90: We are not clear on how water rights would constrain "a number of the proposed facilities." Water rights in Nevada have the ability to be used anywhere, including in a basin separated from where the water is extracted. The only constraint is where EML was (and is) willing to designate specific points of diversion and place of use. Remove "water rights." If BLM is going to keep "water rights" in, then BLM should require that pumping take place at the original location of the original agricultural rights (Bobcat Ranch, Bartine Ranch, Bean Flat) if the location of water rights is a constraint.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

The text in Section 2.2 of the FEIS has been revised to delete "and water rights".

## Letter 803, Comment 73

2.2.2 Page 2-91: Please change sentence that reads "Figure 2.2.1 shows configuration ... reclamation were completed" to "...would be completed."
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

The text in Section 2.2.2 of the FEIS has been revised to read as follows, "Figure 2.2.1 shows the configuration of the Project following the completion of the backfilling and reclamation."

## Letter 803, Comment 74

2.2.4 Page 2-92: The sentence that states that "the level of disturbance would be greater" under the Slower, Longer Alternative is inaccurate and misleading. "Level of disturbance" is a combination of scope, scale, timing, duration, and rate. The level of disturbance on a day-to-day basis would, in fact, be less because the rate of disturbance would be cut in half. This alternative itself was improperly analyzed because there was a failure to address issues other than duration such as scope, scale, and rate. Much of this language related to the analysis of the Slower, Longer Alternative speaks to purchase or ordering of equipment by EML, economies of scale, lead times, etc. that should have no bearing on an adequate review and analysis of a reasonable range of alternatives. The EIS speaks to impacts and should not speak to ordering or design of equipment by EML. The basis of discussion in these two paragraphs would preclude any alternative analysis strictly due to the fact that a proponent has stepped out and already ordered equipment. This analysis

focuses on what the proponent would like, not what could reduce impacts of the Project. Reliance on this arbitrary reasoning is not appropriate; taken to its logical extreme, any proposal that has economics different from the applicant's would be considered in a negative light and not objectively analyzed. Of note, in the BLM NEPA Handbook (H-1790-1) it states that "[i]n determining the alternatives to be considered, the emphasis is on what is 'reasonable' rather than on whether the proponent or applicant likes or is itself capable of implementing an alternative. 'Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant' (Question 2a, CEQ, Forty Most Asked Questions Concerning CEQ's NEPA Regulations, March 23, 1981)'" (BLM NEPA Handbook p. 50). This section sets the tone for the rest of the document in which there is a general disregard of any alternative different from the Proposed Action. This language underscores the fact that BLM has no intentions of doing anything counter to what EML wants. Please revise to account for more thorough and objective analyses of the truly relevant and correlative factors related to total potential impacts of this alternative. This must give proper weight to the day-to-day impacts that would be unquestionably less.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

CC-046- Slower, Longer Alternative Analysis

## Letter 803, Comment 75

2.2.4 Page 2-95: The EIS should disclose how BLM determined that there would be more water evaporation on a per unit basis. The current statements are not grounded in logic nor are they justified by data.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

The following text in the FEIS has been included in Section 2.2.4 as follows, "... on a per unit basis than under the Proposed Action, because the open water in the tailings pond would exist for twice as long during the processing of the same amount of ore. Therefore, this alternative would likely result in twice as much evaporation.)"

## Letter 803, Comment 76

2.2.4 Page 2-95: Focusing on tax revenues (increase or decrease) does not get to the heart of what local residents want to see—socioeconomic stability for the entire region. The bulk of residents are already comfortable with the services that the County provides and at this time, the Mt. Hope Project is not needed (or wanted by some). Include language to make it clear that socioeconomic stability of the region can benefit more from an extended project. The County is willing to sacrifice more tax revenues in order to create longer term stability for residents and local businesses. Include language to point out that although profit and tax revenues would be reduced, there would be more long-term economic stability and less social disruption since the Project would last much longer.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-002-Socioeconomics General Disruption

## Letter 803, Comment 77

2.2.4 Page 2-95: The qualifier of "albeit at half the rate" does not give enough weight to the lessening of day-to-day impacts that would occur over the life of the project. Yes, some impacts will remain the same overall, but the line of reasoning outlined in this section would also justify doubling the rate and reducing the Project's life by half because the exact same statement could apply with a qualifier of "albeit at twice the rate". Impacts should be analyzed according to overall impacts (which may be the same as the proposed action) and the extent of impacts on a day-to-day or year-to-year basis (which would be less than the proposed action). There is a trade-off.
**Disposition**: Other (SEE RESPONSE)

## Response

Individual impacts are analyzed and discussed in Chapter 3 of the FEIS. The impacts from the Proposed Action are not analyzed on a day-to-day basis but on an overall basis; therefore, the approach taken in the analysis of the Slower, Longer Project Alternative in Chapter 3 is consistent with the analyses of the other alternatives.

## Letter 803, Comment 78

2.2.5.2 Page 2-96: The analysis for Different WRDF Heights Alternative should acknowledge that many of the increased impacts described in the DEIS are only temporary, but overall the impacts may be positive. For example, the reclaimed WRDFs would create more forage for wildlife, more surface area for vegetation and soil stability. Further, slopes would not be as steep if the heights were lower, thereby decreasing the possibility of long term soil erosion.
**Disposition**: Other (SEE RESPONSE)

## Response

Section 2.2.5.2 is not an analysis of this alternative, it is an explanation of why it was eliminated from further consideration. As the section explains, "This alternative would increase the amount of surface disturbance and, therefore, the impacts to vegetation, wildlife, and soils, as well as increasing air emissions, due to the increased time frames for mining and longer haul distances during the life of the Project. This alternative would decrease, but not substantially reduce, the impacts to the Pony Express Historic Trail setting in comparison with the Proposed Action. For these reasons, the Different Waste Rock Disposal Facilities Height Alternative does not meet the criteria under Section 2.2 and has been eliminated from detailed consideration."

## Letter 803, Comment 79

2.2.5.8 Page 2-99: Given the recent guidance regarding sage grouse, the Different Powerline Alternative should be given higher weight and brought forward for analysis. The language that has been inserted of being "technically infeasible" is not accurate. The tie-in to the 345-kV line may be temporarily disruptive to service, but not infeasible. Many management decisions regarding sage grouse will prove to be inconvenient at times. The decision to not carry the Different Powerline Alternative forward is not justified by the current explanation since there are compelling environmental advantages to lessen impacts to sage grouse. For example, less vertical structures mean less raptor perching and less sage grouse predation. We do not wish to see more power lines going up when they may be unnecessary especially regarding the impacts to sage grouse.
**Disposition**: Comment acknowledged; does not provide new information

## Response

As the operator of the Falcon-Gondor powerline, NV Energy determined this alternative to be infeasible. The powerline associated with the Proposed Action would be located within the Falcon-Gondor corridor and would be constructed in compliance with greater sage-grouse conservation measures included as Appendix C, Attachment 3 in the FEIS. These conservation measures were developed in coordination with the NDOW to comply with the most recent policy guidance regarding greater sage-grouse.

## Letter 803, Comment 80

2.3 Page 2-100: Eureka County could come to consensus with BLM and EML on the Proposed Action as the preferred alternative if we believed the committed mitigation measures in the Proposed Action and outlined in the DEIS were adequate. Before moving forward on the FEIS or drafting of the ROD, we strongly urge BLM to seriously work with us to take our concerns and comments into account and implement the necessary changes and mitigation measures that Eureka County can support. We are concerned that BLM moved forward with a preferred alternative without engaging Eureka County, as a Cooperating Agency, in any discussions regarding consensus on the preferred alternative as required according to the BLM NEPA Handbook (Section 9.2.7.3).
**Disposition**: Comment acknowledged; does not provide new information

## Response

The BLM is required to identify a preferred alternative in the EIS (40 CFR 1502.14). As stated in the BLM's "A Desk Guide to Cooperation Agency Relationships and Coordination with Intergovernmental Partners" dated 2012, "Does a CA relationship require the BLM and the cooperators to make decisions by consensus? No. Consensus may not always be achievable or consistent with the BLM's legal obligations or policy decisions. However, the DOI's NEPA regulations at 43 CFR 46.110(c) require that the Responsible Official must, whenever practicable, use a consensus-based management approach to the NEPA process." BLM policies require a collaborative process and the BLM has included Eureka County in a collaborative process and in substantial discussions. Many changes in the environmental analysis, the mitigation measures, and the Proposed Action have been made as a result of the collaborative process with Eureka County. BLM's policies do not require that the BLM reach a consensus with cooperating agencies on the preferred alternative. Collaboration mandates methods, not outcomes. It brings diverse parties together to seek broadly acceptable solutions to (what are usually) complex problems. It does not guarantee the parties will achieve consensus, and the BLM remains the final decision maker on matters within its jurisdiction. No change has been made in the FEIS in response to this comment.

## Letter 803, Comment 81

Water related impacts to many resources, including Roberts Mountain, may be greatly reduced or avoided simply by siting the wellfield in a different location. As we have previously highlighted and requested, there needs to be analysis to account for the alternative of all wellfield water being supplied from wells sited in phreatophyte areas on the Kobeh Valley floor. Given the fact that phreatophyte decline (and eventual loss) is an unavoidable impact and under Nevada water law must occur, drawing directly from this water source would limit the drawdown area and many ancillary impacts to arguably higher value resources on Roberts Mountain and the alluvial fans. We believe siting the wellfield in the phreatophytes will greatly reduce the range of potential impacts and will serve as mitigation itself in a way to avoid some impacts altogether. Further, more detail could be provided and resources committed to address the more narrow range of impacts that could occur in primarily just the phreatophyte areas. Please adequately analyze this scenario in order for all stakeholders to weigh the trade-offs and make a reasoned choice on locations for wellfield pumping.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The Proposed Action provides for modification to the wellfield to minimize impacts (see Section 2.1.2 of the EIS and Mitigation Measure 3.2.3.3-3b of the EIS). No changes have been made to the FEIS as a result of this comment.

## Letter 803, Comment 82

3.2.1 Page 3-3: Public Water Reserves 107 (PWR) do not belong under "Regulatory Framework." PWRs are not regulations and carry no elevated status above other water rights. This section is sufficient in describing the regulatory framework and jurisdiction without discussion of PWRs. PWRs still fall under state jurisdiction and regulatory authority and are no more a valid water right than any other water right. All discussions of PWRs should fall under water rights sections later on.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

In response to the comment, the paragraph discussing Public Water Reserve No. 107 has been moved from Section 3.2.1 to the discussion of "Water Rights" in Section 3.2.2.7.

## Letter 803, Comment 83

3.2.1 Page 3-3: Responses to previous ADEIS comment 597 and 1663 are incorrect. All of section 3.2 deals with water quantity. There is no federal jurisdiction over water regulation, appropriation, or preservation with regard to water quantity (only federal jurisdiction over water quality). Just because there is a federal connection through EO PWR 107 doesn't translate to federal jurisdiction. See the recent Owyhee River Basin Adjudication which underscores this fact. We suggest BLM change the sentence to read "...in Nevada falls under state jurisdiction."
**Disposition**: Comment acknowledged; does not provide new information

## Response

The comment is correct that the Nevada State Engineer has jurisdiction over appropriation of water rights in Nevada. That is clear from the text of the EIS in many places and no change in the particular text referenced by this comment has been made.

## Letter 803, Comment 84

3.2.2.2.1 Page 3-7: This paragraph is not entirely correct as surface drainage from Garden Valley seldom, if ever, makes its way to the Humboldt River. It flows towards the River, but is infiltrated, evaporated, or used before it ever reaches the Humboldt.
**Disposition**: Already addressed in planning documents

## Response

The use of the word "drain" rather than "flows" was chosen because of this condition. No change has been made in the FEIS in response to this comment.

## Letter 803, Comment 85

3.2.2.2.3 Page 3-9: BLM still continues to not include all known springs and wells, regardless of the data set used, and fails to recognize and disclose the full range of impacts. It is of concern that BLM continue to omit these water sources especially since we specifically pointed these out to BLM two years ago and they should have easily been included. The individuals that own these water rights wish to have them included so that they can weigh the impacts upon their private property and business operations. Given that omitted Gravel Pit Spring is a PWR 107 further undermines the ability of the BLM to evaluate the impacts on public resources.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-033-Data Adequacy

## Letter 803, Comment 86

3.2.2.2.3 Page 3-21: The table still omits many weather stations within 60 miles of the Project Area including at least 3 RAWS sites, the Diamond Peak snotel site, and the Diamond Valley agrimet site. Please include these into the analysis.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-033-Data Adequacy

## Letter 803, Comment 87

3.2.2.3 Page 3-22: As previously requested, please include Roberts Creek in the table. BLM's response to our previous comments did not give an adequate reason why Roberts Creek was omitted but simply said "refer to comment 370" which had nothing to do with adding Roberts Creek. Additionally, one measurement taken in 2007 or 1964 does not support the conclusions drawn about Roberts Creek or any of the other creeks in all of the basins reported. For example consider the statement "more recent estimates…in Coils Creek have not been found." More recent data exists from the USGS gaging station on Coils Creek with GOES real-time telemetry. In fact, the measurements given in the text are at odds with more recent measurements provided in Table 3.2-2. More recent data is available on many of these streams and creeks from EML themselves or USGS. Most recent data must be used in order to be defensible. Further, USGS data should be used and reported wherever available. In addition to the USGS installed gaging stations, they have been doing quarterly seepage and flow measurements since 2010 and all of this information is available on the NWIS

website. Please update text, tables, and analysis to give most recent flow reported by USGS on at least Roberts Creek, Coils Creek, Henderson Creek, Pete Hanson Creek and Tonkin Springs. Also, please refer to previous ADEIS comment 642 that did not receive a response. There is a statement that Pete Hanson Creek did not have flow in 2007. However, Pete Hanson Creek had to have some flow in August 2007. If not, how do the fish and particularly LCT continue to survive in this Creek?
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-033-Data Adequacy

## Letter 803, Comment 88

3.2.2.3.1 Page 3-23: The 1983 and 1984 flows through Devil's Gate in Slough Creek were far larger than the 1964 figure reported and should be mentioned. Also, Slough Creek has a supplemental water right associated with it in Diamond Valley that must be taken into account.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-033-Data Adequacy

## Letter 803, Comment 89

3.2.3.1.2 Page 3-36: The DEIS uses 10 feet of drawdown calculated via the groundwater flow model as the criterion to assess whether or not an impact to a particular water resource or water-dependent resource is predicted to occur. The rationale given in the DEIS for this 10-foot drawdown criterion is simply that it is a common metric applied to mining EISs in Nevada because it can be difficult to distinguish specific project-induced effects from natural variations unless the related changes in water level are greater than 10 feet. That statement might hold true for monitoring programs where sparse data are acquired at very low frequency, say quarterly. But, for comprehensive monitoring programs such as the one proposed for the Mt Hope Project where water levels in numerous widely disbursed monitoring wells and flow in select streams are to be measured continuously, experience has shown that a water-level change of less than a foot can often be tied to a particular pumping stress. Using the BLM's logic, if a monitoring program is specifically designed to help tease out the cause of water level changes of less than 10 feet, then a smaller drawdown criterion should be applicable. Eureka County has repeatedly proposed the use of five feet of predicted drawdown related to the project to provide a conservative approach for disclosing potential impacts instead of 10 feet. The primary reason is that small changes in water level can have a significant impact on spring flow and wet meadows. The fact that a small decline in water level can severely impact springs is clearly evidenced in Diamond Valley where as little as one to two feet of drawdown resulting from agricultural pumping has caused the flow of springs on the valley margins or near the playa to decline or cease altogether. At the "All Parties" meeting held at BLM in Battle Mountain in December 2010, the BLM's EIS contractor provided a response to the County's recommendation by explaining that the residual error of the groundwater flow model used to evaluate impacts to the groundwater regime was in the range of 10 feet and, therefore, did not justify using five feet of drawdown as a metric for predicting impacts.
We recognize that some areas of the Hydrologic Study Area incorporated into the model have significant uncertainty with respect to the properties of the geologic formations and general complexity, but we believe it is better to err on the side of caution by incorporating a 5 foot contour coupled with comprehensive monitoring. Eureka County's opinion of the inadequacy of the 10 feet drawdown contour to gauge potential impacts to spring sources is echoed by the EPA in their review of the DEIS of the Southern Nevada Water Authority's Clark, Lincoln and White Pine Counties Groundwater Development Project. The EPA concluded "...there is a need for evaluation of the effects of groundwater drawdown of less than 10 feet..." Partly for this reason, the EPA judged the SNWA DEIS to be "incomplete." The NDOW provided a very similar comment on their review of the SNWA DEIS. The same logic applied by EPA and NDOW in the SNWA DEIS will likely apply to this DEIS analysis. Consequently, Eureka County will continue to advocate for five feet of drawdown as a metric for disclosing potential impacts to springs and surface-water resources coupled with a monitoring, management and mitigation program grounded in scientific principals and consistent with regulatory constraints.
Additionally, the groundwater model incorporated in the DEIS was used to predict impacts to phreatophytes in Kobeh Valley and to assess the effect of the Project on hydrographic basin water budgets. By the end of active mining the model predicts a reduction of more than 4,000 AF/year of phreatophyte evapotranspiration (approximately 25% of the natural discharge by phreatophytes in Kobeh Valley) and this number is used to assess impacts to native vegetation and basin water budgets. Most of this impact to phreatophyte communities takes place where drawdown is less than 10 feet and yet, the DEIS places some stock in this assessment to evaluate the impact of the Project on the water budget for Kobeh Valley and potential impacts to phreatophytes. This begs the question, if less than 10 feet of drawdown allows for credible estimates of impacts to phreatophytes, why is less than 10 feet of drawdown not applicable to other water resources such as a spring and associated water-dependent resources such as wet meadows and riparian zones? Please adopt the maximum extent of the five foot drawdown contour predicted to be caused by the Project's groundwater pumping as the metric for assessing which water resources and water-dependent resources potentially will be impacted by the Project. If necessary, include a disclaimer that the prediction has uncertainty associated with it and clearly state 5 feet of drawdown was selected to disclose a conservative assessment of potential impacts.
**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-096-Ten-Foot Isopleth

## Letter 803, Comment 90

3.2.2.6.2 Page 3-44: Please update text to describe the depths of these tests for all holes and wells tested. Depths are reported only for hole 248. Eureka County, as a cooperating agency, was not provided a copy of these test results and we are concerned whether the tests were carried out at all depths necessary to adequately determine impacts related to dewatering (especially as the pit gets deeper). There is no way to determine this from the current text and it isn't clear to us what conclusions BLM can draw from the analysis.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The specific information requested in this comment is located in the baseline data report cited in the FEIS, which are available for review at the BLM Battle Mountain Office and are included in the administrative record for this project.

## Letter 803, Comment 91

3.2.2.6.2 Page 3-46: The statement "The extent of the outcrop area of these rocks generally does not indicate the full extent of the intrusive body in the subsurface" also applies to every other hydrolithologic units including the carbonates. For consistency similar statements should be made following description of each unit type in this section. The current statement seems to be trying to set the stage to explain away any subsurface flow between valleys later in the document.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The nature of the implacement of intrusive rocks results in highly irregular configurations. This is very different from how sedimentary rocks are formed. As a result, the subsurface configuration of intrusive bodies are typically more unknown than other types of rock units. No change has been made in the FEIS in response to this comment.

## Letter 803, Comment 92

3.2.2.6.2 Page 3-46: BLM's response to our previous comment regarding lack of aquifer data in the southern portion of the wellfield did not get to the heart of the issue we brought up. It is true that the model predicts hydrologic properties, but the argument is not on what the model predicts but that real, on-the-ground data and aquifer testing is notably absent in the area of the south wellfield. More data should be collected in this area to support any results, including modeling predictions. No testing was done in the south portion of the wellfield. Data must be collected there, especially since pumping in this area would more quickly impact phreatophytes, springs that are already listed as potentially drying up (e.g. Lone Mtn. Spring and Mud Spring), and underground water rights (e.g., Risi and Garaventa rights at the Hay Ranch). Pinning down the aquifer properties in this area based on real data will have a great influence on the impacts analysis. Impacts to phreatophytes, springs, and water rights near the south wellfield cannot be adequately analyzed without knowing the hydrologic properties of the alluvium in this area. Eureka County has brought this issue up to BLM and EML multiple times over the past 4 years and there has been plenty of time to address it and get some real aquifer data collected in this area. In fact, the wells which have been drilled and tested, and whose impacts are easier to monitor and identify, make up only 44 percent of the proposed production, leaving 56 percent of the hydrogeology of the proposed production entirely unknown. This prevents the DEIS from properly analyzing the potential adverse impacts of the mine's groundwater withdrawals especially related to phreatophytes and springs located closer to the south end of the wellfield (e.g., Mud Spring, Lone Mountain Spring, Hay Ranch wet meadows).
**Disposition**: Comment acknowledged; does not provide new information

## Response

The BLM used best available data. Required monitoring will continue to assess the extent of drawdown to verify the accuracy of the model and trigger mitigation as necessary.

## Letter 803, Comment 93

3.2.2.6.5 Page 3-55 and 3-56: The last sentence of the first partial paragraph at the top of page 3-56 incorrectly states that the flow across the northern boundary of the HSA is approximately 3,100 afy. The correct value of the estimate (found in Montgomery, 2010) is 11,300 afy.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

The text in the FEIS has been revised to correct this figure to read "11,300".

## Letter 803, Comment 94

3.2.2.6.6 Page 3-56: The DEIS recognizes that Diamond Valley is the terminus of the Diamond Valley Regional Flow System; therefore, it should be unambiguous that interbasin flow occurs and that actions in one basin have the potential to impact resources in adjacent basins. An estimated 2,000 acre-feet per year of groundwater is calculated by the DEIS groundwater flow model to flow from Kobeh Valley to southern Diamond Valley. This equates to a significant proportion of the recharge to southern Diamond Valley, where groundwater is exploited by agriculture and other users. However, statements like " . . . major barriers to ground water flow in these areas of carbonate rocks" scattered through the DEIS tend to the down play the interconnection between Kobeh Valley and

Diamond Valley, and the potential for impacts to cross basin boundaries, and suggest a bias in favor of the Project. Every effort should be made for the DEIS to provide a fair and balanced assessment of the resources and potential impacts.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The text in Section 3.2.2.6.5 of the DEIS accurately presents the best available data on the groundwater flow within the hydrologic study area. No changes have been made in the FEIS to address this comment.

## Letter 803, Comment 95

3.2.2.7 Page 3-57: The DEIS reports that "For the purpose of EIS analysis, all underground water rights and pending applications for underground water rights owned by EML or its subsidiaries were excluded from the assessment of potential impacts." To not disclose or address the potential impacts of pending applications for underground water rights in the DEIS severely discredits the validity of the document. We especially need to see these sources included given the fact that impacts to water rights currently controlled by EML will restrict the future viability of our long-term agricultural tax base, regardless of ownership. All impacts, regardless of water rights ownership, need to be disclosed in order for BLM, Eureka County, and the public to understand and weigh the full scope and scale of impacts related to the Project.
**Disposition**: Comment acknowledged; does not provide new information

## Response

Information on pending and approved water rights applications are available from public records. The BLM excluded the pending and approved water rights of EML, the operator, from the analysis in the EIS because it is assumed that the company's own water rights would be "affected" by Project-related ground water pumping and EML recognizes this as part of their proposed Project. In addition, to include those rights in the impact analysis would artificially inflate the level of impact to users that do not otherwise have control over the activities that cause the impact.

## Letter 803, Comment 96

3.2.2.7 Page 3-57: It is important to cite the Nevada Water Law statutes in order to weigh potential impacts on these rights and because vested rights and subsisting rights cannot be impaired. We request language to clarify, "NRS 533.085 states that 'nothing...shall impair the vested right of any person to the use of water' and NRS 533.495 states that 'subsisting rights not to be impaired.'"
**Disposition**: Comment acknowledged; does not provide new information

## Response

The BLM does not agree that the EIS requires extensive citations of Nevada water laws. All water rights decisions must be made in the context of such laws and their administration by the Nevada State Engineer. No change has been made to the text of the EIS.

## Letter 803, Comment 97

3.2.2.7 Page 3-57: BLM fails to acknowledge and disclose the impacts to many water rights by relying on a search of the NDWR database from over 2 years ago in Jan. 2010. This is inappropriate given the fact that many of the omitted water rights were specifically pointed out to BLM by Eureka County in both ADEISs. Please update the information on all potentially affected water rights and include at least 2 pending applications in Diamond Valley, 1 recently granted application at Frazier Creek in Garden Valley, and 2 pending applications at Bartine Ranch in Kobeh Valley. Figures also need to be updated to include these omitted applications.

## Response

The BLM used the best data available at the time the baseline reports and DEIS were prepared. The inclusion of the newly granted right in Garden Valley, outside of the projected area of ground water affects, and the addition of newly applied for water rights, would not materially affect the environmental analysis. As noted in Section 3.2.2.7, approximately 1,000 water rights and water right applications for the inventoried area were collected from the NDWR database and tabulated in an appendix to the Montgomery et al. 2010. It is to be expected that as part of periodic ground water flow model updates, the database would be updated as additional applications are made or granted.
**Disposition**: Comment acknowledged; does not provide new information

## Letter 803, Comment 98

3.2.2.7 Page 3-57: The DEIS only addresses potential impacts to springs located within the maximum extent of the 10 foot drawdown contour for which water rights are on file with the Nevada Division of Water Resources. But, on p. 3-57, the DEIS recognizes the likelihood that "Additional vested water rights and subsisting rights for stock water . . . could exist within the Project Area and within the ten-foot ground water drawdown contour." Furthermore, the DEIS downplays the fact that the Pete Hanson Creek decree incorporates the flow of all springs in the headwaters of Henderson Creek that contribute to the flow of the creek. No decrease in the flow of these springs adjudicated by the decree is permissible under Nevada water law. Yet, these vested spring rights are given short shrift in the DEIS despite the fact that five springs catalogued in the DEIS are located within the predicted maximum extent of the 10-foot drawdown contour resulting from Project pumping. The DEIS must address all water rights, whether they are permitted, certificated, decreed, vested, or subsisting, whether or not a claim has been filed. A loss or reduction in the resource of any one spring

will cause additional stress on the remaining resources by concentrating use at the remaining spring sources. Please revise to emphasize that spring sources within grazing allotments have vested rights and subsisting rights associated with them whether or not a claim has been filed with the office of the Nevada State Engineer (NSE). Clarify that there is no requirement under Nevada water law to file for these claims until the NSE calls for adjudication and a "taking of proofs" (see NRS 533.110 for more information). Again, please make it clear that impacts to all water sources whether they are pre-statutory (vested), permitted, certificated, or decreed will be fully mitigated. Table 3.2-6 should be modified to include all springs because all springs within grazing allotments are utilized by livestock, whether or not a claim of a vested right has been filed with the Nevada Division of Water Resources and that wildlife utilize these same sources and are guaranteed customary access and use of these waters as outlined in NRS 533.367.
**Disposition**: Comment acknowledged; does not provide new information

## Response
CC-031-Impacts to Surface Water Quantity

## Letter 803, Comment 99

3.2.3 Page 3-58: The DEIS presents a comprehensive program to monitor changes to groundwater and surface-water resources. The primary goal of this plan, which was incorporated into the Project's Plan of Operations, should be to foretell impacts before they become problematic, to initiate management decisions that might negate the need for mitigation, or to facilitate a response to changes (mitigation) before an adverse impact becomes irreversible. However, there are severe issues, even possible fatal flaws, associated with the proposed measures to mitigate adverse impacts to water resources. Furthermore, the proposed monitoring and mitigation process ignores the importance of management, which if initiated before impacts to sensitive receptors occur, may eliminate the need for costly mitigation which may take years to implement and be effective. Specific issues with the proposed mitigation processes are included in our subsequent comments.
**Disposition**: Comment acknowledged; does not provide new information

## Response
The monitoring plan developed with cooperation and input from the BLM, the cooperating agencies, USFWS, and a group of Diamond Valley growers, and proposed by EML as a component of their Plan of Operations is adequate to determine impacts and provide advance indication of impacts. Numerous options are identified in the EIS to mitigate impacts should impacts be observed during monitoring. No change has been made to the EIS in response to this comment.

## Letter 803, Comment 100

3.2.3.1.2 Page 3-63: We request that BLM insert similar language for consistency with 3.2.3.1.1 Surface Water Quantity. Add, "as defined by state law" after "use" to read "A long term consumptive use of a water resource that does not provide for a beneficial use, as defined by state law." Under Nevada water law, beneficial use is defined as the purpose for which the water is to be appropriated and has a very specific meaning.
**Disposition**: Comment acknowledged; does not provide new information

## Response
The BLM agrees that the term "beneficial use" has a specific meaning under Nevada law. Reference to the statute is more correct than adopting the language proposed in the comment. Beneficial use is not just the purpose for which the water is to be appropriated. NRS 533.035 states that beneficial use shall be the basis, measure, and the limit of the right to use water. The reading of the term in the comment does not affect any analysis in the EIS.

## Letter 803, Comment 101

3.2.3.1.2 Page 3-63: Since 56% of the proposed production wells have had no pump testing and there are no aquifer properties data in these areas, please explain how BLM determined the hydraulic connection in the significance criteria.
**Disposition**: Comment acknowledged; does not provide new information

## Response
The BLM made a conservative assumption based on spatial overlap of the modeled ten-foot drawdown and the location of surface waters. This is explained in section 3.2.3.3.1 which states " ...it was conservatively assumed that all of the springs located in this area are interconnected with the regional groundwater system...".

## Letter 803, Comment 102

3.2.3.2.1 Page 3-65: We previously pointed out that using 2009 as the steady state for the local model cannot be valid and sways the results. BLM responded that "although the pit is located on the hydrologic divide, pumping in Diamond Valley has not affected groundwater levels in the pit area, either on the Diamond Valley or the Kobeh Valley sides of the divide. Thus, 2009 groundwater levels closely represent steady-state conditions in the pit area." However, EML's own regional flow model (and testimony at the NDWR water rights hearing) shows pumping from Diamond Valley has affected this area. We question the ability of the local model to accurately and adequately consider the impacts of the project given the arbitrary steady state of 2009. Please revise the local model to provide for a reasonable steady state condition and more defensible conclusions.
**Disposition**: Comment acknowledged; does not provide new information

## Response
CC-097-2009 Steady State Condition

## Letter 803, Comment 103

3.2.3.2.2 Page 3-66: Many previous ADEIS comments were not properly addressed (see previous comment 1723). We do not agree with BLM's response to these previous comments from a scientific and common-sense standpoint. The modeling omitted multiple sources of pumping which taken separately may be minor, but cumulatively equate to high rates that should be accounted for. BLM's perfunctory response was that these additional sources "would be an insignificant amount relative to major water input to the model...there is uncertainty with regard to future pumping rates and such a change would not be expected to significantly alter the predicted impacts of the Proposed Action or other mining alternatives." On the first ADEIS, BLM responded (comment 736) by stating "if the model is going to be rerun anyway, it would be a good idea to update...per the comment". The model was rerun, yet not updated to take these other sources into account. The text was not even updated to explain why these sources were omitted. The sources that should be added include, but are not limited to: 1120 afa of water to be used by Wise Family Development, LLC in Kobeh Valley; Devil's Gate GID 1 and 2 wells which use just as much water as Eureka; hundreds of domestic wells in DV which combined equate to much more than the municipal uses; future municipal and domestic uses attributable to the Project related population growth; continuation of dewatering at Ruby Hill well past 2012 based on the recent Plan Amendment and Barrick's public disclosures; and the EML/EPC agreement that intends to retire water in Diamond Valley that will have bearing on when pumping rates are reduced (i.e., much different than 2105). Add all of these sources up and it is a very substantial amount of water not "insignificant" as BLM concludes.
**Disposition**: Comment acknowledged; does not provide new information

## Response
CC-014-Modeled Ground Water Users

## Letter 803, Comment 104

3.2.3.2.2 Page 3-66: Please recheck this information. It is our understanding that consumptive use of the Ruby Hill Mine is now expected to continue through at least 2023.
**Disposition**: Comment acknowledged; does not provide new information

## Response
CC-014-Modeled Ground Water Users

## Letter 803, Comment 105

3.2.3.2.2 Page 3-67: Still, the y-axis and title should be changed to clarify that the graph depicts the average annual consumptive use rate, not the pumping rate. BLM responded to previous comment 1729 that the "y-axis as stated on Figure 3.2.15 is accurate it reflects the data for pumping not consumption." Again, we point out that this is wrong. There is much more than ~35,000 gpm pumped in Diamond Valley and 35,000 gpm is the consumption rate. According to the NSE records, there is roughly 48,000 gpm pumped in Diamond Valley. Also see text on p. 3-65 that speaks of "consumptive use of ground water for agricultural...in Diamond Valley continues at 2009 rates (34,630 gpm)." Please correct both the y-axis and title as previously requested.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response
In Table 3.2-7 of the EIS, the column heading states "Net Agricultural Pumping," with a footnote (#2) explaining that this means net consumptive loss when referring to irrigation withdrawals. Figure 3.2-15 of the EIS present the same data, the title of the y-axis has no been revised since it refers to both agriculture and mine pumping rates; however, a footnote has been added to the figure stating "Note: Agriculture pumping is the annual net agricultural pumping, which is not consumptive the loss when refering to irrigation withdrawls."

## Letter 803, Comment 106

3.2.3.2.2 Page 3-67: The precipitous falloff in Diamond Valley pumping forecast for 2105 is inaccurate because all pumping will not cease in one year but will slowly taper off. The pumping decline should be depicted by tapering in the model and depicted by a sloping line or curve and a range of scenarios should be used. While it is, of course, impossible to definitively model or describe the rate at which pumping rates will eventually decrease, the current depiction does little to adequately inform the reader about how the pumping will decrease.
**Disposition**: Comment acknowledged; does not provide new information

## Response
CC-014-Modeled Ground Water Users

## Letter 803, Comment 107

3.2.3.2.2 Page 3-69: Total Eureka County municipal water consumption in Diamond Valley is likely greater than the assumed 2006 rate and should not be assumed fixed at that rate for the duration. BLM should develop a projected rate using the baseline socioeconomic data for Mt. Hope along with growth projections for Ruby Hill and other local mines in coordination with Eureka County Public Works.
**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-014-Modeled Ground Water Users

## Letter 803, Comment 108

3.2.3.3 Page 3-72: Throughout the document, particularly Section 3.2.3.3, monitoring is often referred to as a Mitigation Measure. For example, Mitigation Measure 3.2.3.3-2b, page 3-86 states "if monitoring (Mitigation Measure 3.2.3.3-a) indicates . . ." The BLM NEPA handbook states that design features are not mitigation. "Measures or practices should only be termed mitigation measures if they have not been incorporated into the proposed action or alternatives." (BLM NEPA Handbook, page 61). The monitoring program for the Mt. Hope Project, provided in Appendix B, is a design feature discussed in Section 2 Description of Alternatives, Including the Proposed Action and also incorporated into the Plan of Operations (PoO), therefore, by definition it cannot be mitigation. That monitoring should not be considered to be mitigation was explicitly addressed by Eureka County's comments to the second ADEIS, yet the BLM continues to define monitoring as a mitigation measure. Please disconnect monitoring from mitigation and remove all references to monitoring as a mitigation measure. Also, please be consistent between Table 3.2-9 and the multiple discussions of mitigation throughout the document.
**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-035-Monitoring Concerns

## Letter 803, Comment 109

3.2.3.3.1 Page 3-77: Please revise to read "...have not been identified as having PWRs or vested water rights claims, but with sufficient flows to support such claims, could be affected." Further, subsisting rights to water livestock were ignored (NRS 533.492 through 500). Subsisting rights exist and are guaranteed regardless of a record at the NDWR. NRS 533.493 states, "Recognition of adjudicated rights to water livestock from streams by State Engineer. Within a stream system or groundwater basin...the State Engineer shall recognize rights to water livestock from streams, whether or not in conjunction with a right to use water for irrigation, which are established by a vested water right, a subsisting right shown as provided in NRS 533.492 or a permit issued by the State Engineer." The EIS must point out that each stream and stream system in a grazing allotment has an underlying and inherent right to water livestock.
**Disposition**: Comment acknowledged; does not provide new information

## Response

NRS 533.493 does not state that each stream or stream system in a grazing allotment has an underlying and inherent right to water livestock. NRS 533.493 was added to require the State Engineer to allow stockwatering rights to be fulfilled directly from the stream source. The person who owns the livestock must still have some basis to use the water (vested right or appropriation). If the use of water by a person's livestock directly from the stream was initiated prior to 1905, then the person may be able to establish that his right to use the water vested before enactment of Nevada's water law. If the use of water from the stream was initiated after 1905, then the person must have obtained an appropriation from the State Engineer. The EIS acknowledges that such rights exist and may be impacted. Further quantification and identification of these rights would not add useful information to the analysis of environmental impacts.

## Letter 803, Comment 110

3.2.3.3.1 Page 3-77: Please reference the legal basis for the 1800 gpd amount of "sufficient flow" to support PWRs. It seems like an unsupported and arbitrarily established flow amount.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The State Engineer has determined that the intent of PWR 107 was to reserve water rights from important spring sources and not withdraw land if the spring provides only enough water for a single family. In Nevada, domestic use for a single family residence is exempt from the requirement to obtain a permit from the State Engineer to use groundwater, but such use is limited to two acre-feet annually, which is approximately 1,800 gallons/day (NRS 534.180). By stating that the spring source must produce more than 1,800 gallons/day, BLM is following the State Engineer's threshold to determine when a spring may have a federal reserved water right under PWR 107. The State Engineer's determination is supported by the express language of the executive order withdrawing all public lands with a public water reserve (BLM regulations, Solicitor Coldiron's Opinion dated February 16, 1983, and related case law. See U.S. v. City and County of Denver, 656 P.2d 1 (Colo. 1982) U.S. v. Idaho, 959 P.2d 449 (Idaho 1998)).

## Letter 803, Comment 111

3.2.3.3.1 Page 3-77: The text and Table 3.2-8 describes "springs that may be affected by Project activities." However, one spring, 641 or OT-7 also locally known as Nichols Spring has already been affected by Project activities, namely test pumping of well 206 that is completed in the carbonate aquifer. We have specifically highlighted this impact to BLM (and EML) on at least 5 different occasions. We initially brought this issue up after being informed about it from the ranch owners and water rights holders. The first time it was discussed with BLM and EML was at the January 13, 2010 meeting at BLM in Battle Mountain to discuss the water resources monitoring and mitigation with other cooperating agencies and stakeholders. We again specifically referenced this impact on both previous ADEIS and in our letter to BLM dated February 28, 2011 where we explicitly stated, "It is believed that pump testing of well 206 has already impacted Nichols Spring. Where in the EIS is this specific mitigation addressed?" Further, at a coordination meeting between Eureka County and BLM on November 16, 2011 this was again a point of discussion and we were told by Mr. Furtado to provide the comment again with any supporting evidence on the DEIS.

The flow of Nichols Spring may have been affected by the 32-day duration pumping test of EML's test well 206T in 2008. The spring had reportedly been a reliable source of stock water for the Roberts Mountain grazing allotment as long as anyone can remember. Since testing of 206T, the grazing permittee has reported a decline in flow and a need to haul water due to insufficient flow from this source to meet the needs of his livestock which was not previously necessary prior to the 2008 test pumping.

The geology in the vicinity of Nichols Spring and test well 206T is illustrated in the figure 1 below. Well 206T derives groundwater from highly fractured limestone and the Devils Gate Formation (Ddg in Figure 1) crops out a short distance northeast of the well site. Carbonate rocks belonging to a number of other formations (labeled Dnb, Ddl, Dm and DSl in Figure 1) are also present north of 206T. Well 206T is located near a northwesterly-trending normal fault which potentially may have some influence over the transmissivity of the carbonate rocks at this locale, because dissolution of fractured carbonate rocks can result in solution channels capable of transmitting large quantities of groundwater. Nichols Spring is located approximately 3.1 miles northeast of 206T and is mapped in the same limestone formation as well 206T (also Devils Gate Formation, Ddg). These two areas of limestone are separated by a ridge of basalt (the "basalt ridge" discussed in the various reports prepared for EML). Figure 1 also shows the presence of numerous faults, which result in relatively complex geologic conditions in this area, including faulting that might provide a means for a direct hydraulic connection between 206T and Nichols Spring. Several northeasterly-trending normal faults are mapped east and north of 206T. However, the transmissivity of these fault structures may be highly variable.

Figure 1 (Source: Montgomery et al. 2010)

Testing of 206T demonstrated the extremely permeable nature of the limestone at this locale as evidenced by the very large value for transmissivity, T, provided in figure 2 below. By the end of the 32-day test, nearly 10 feet of drawdown was measured in the two piezometers close to 206T (206 MS and MD) and more than eight feet of drawdown was measured in the deeper piezometer at the 205 site, approximately 1.1 miles to the southeast. No drawdown was observed at sites 203 and 204, located approximately 1.3 and 1.8 miles to the northeast, respectively. The lack of a drawdown response at the 203 and 204 sites is thought to arise as a result of the presence of relatively impermeable rocks east of 206T. The presence of a boundary roughly coincident with the basalt ridge is implied in the shape of the plot of drawdown versus time for the three observation wells (206 MS and MD and 205 MD) shown in Figure 2. In fact, testing results indicated multiple boundaries near 206T, suggesting the extent of the highly permeable limestone is limited, or that the limestone aquifer is "compartmentalized" in this area.

Figure 1

Because Nichols Spring is also situated east of the perceived boundary, at first blush it seems unlikely that testing of 206T could cause any impact on the spring flows. However, the transmissivity of the carbonate-rock aquifer "compartment" penetrated by well 206T, observation wells 206 MS and MD, and 205 MD is very high, such that geologic units that are one or two orders of magnitude less transmissive can still be expected to transmit some groundwater although they elicit a boundary response.

EML's baseline report (Buqo 2008) provided a map (Fig. 17) which illustrates the locations of faults in the vicinity of Mt Hope. A portion of Buqo's Figure 17 is provided below as figure 3 and the figure illustrates a somewhat different interpretation of faulting near 206T and Nichols Spring compared to Figure 1. The solid blue lines in Figure 3 represents faults with Quaternary or Holocene movement and which "may be highly transmissive."

One such potentially highly transmissive northeast-trending fault is shown transecting the basalt providing a potential means for drawdown east of the basalt ridge. While this fault is not depicted as intersecting the southerly trending fault aligned with Nichols Spring, it represents a potential for the drawdown response to be propagated in the direction of Nichols Spring. Once pumping of 206T was terminated, the recovery of water levels in the observation wells has proceeded at a slow rate, consistent with a compartmentalized aquifer, but water levels are reportedly still recovering as the compartment is filled with water from adjacent areas.

Figure 2 (Source: Buqo 2008)

Although there may be no identified direct hydraulic connection between the carbonate rocks exploited by well 206T and the carbonate rocks near Nichols Spring, there is also no hard evidence that some degree of connection does not exist. In fact, different investigators for EML provide different geologic interpretations of faulting in this area. We believe we have highlighted reasonable connection between the pumping of well 206T and the decrease in flow at Nichols Spring.
Further, the complexity of the geology in this area and this potential adverse impact underscores the need for better committed monitoring of the water resources that potentially might be impacted by groundwater extractions by the Project. Painfully, as was the case here, if an adequate baseline is not established prior to any Project related pumping, this undermines the entire process moving forward with discerning of impacts and tying those impacts to Project related activities.
Please propose what can be done by EML to work with the impacted water rights holder to come to agreement on mitigation to address the impact to Nichols Spring or provide some other reasoning as to why EML is not held accountable for this impact.
**Disposition**: Comment acknowledged; does not provide new information

## Response

There is no evidence or data to support the decrease in the flows that the commenter states have been reported by the rancher. The following is provided in an April 24, 2012 (updated June 19, 2012), technical memorandum prepared by Interflow, "Over six years of baseline spring monitoring has been conducted on Nichols Spring, including two years of monitoring prior to drilling and testing of the 206T test well. Nichols Spring flows were measured during the course of the 32 day pumping test, without any observed change in spring flow beyond the seasonal background trend. Spring flows observed during the year in which testing was conducted (2008) were similar to flows observed in both 2007 and 2009, the year before and after testing. Static water levels at the 206T well were slow to recover due to a compartmentalized aquifer condition, and did not completely return to starting static water levels due to a superimposed long-term declining background trend which is documented by continued monitoring of water levels at the 206T well."

## Letter 803, Comment 112

3.2.3.3.1 Page 3-78: We are particularly pleased to see that the BLM finally recognized the decreed water rights associated with Henderson Creek. Reference to these rights and the possibility of impacts to them were omitted from the two ADEIS. Our continued insistence that the BLM consider these rights was based on a 2010 opinion by the 9th Circuit of the U.S. Court of Appeals that made it exquisitely clear that senior (first in time) decreed water rights cannot be affected by junior (later in time) groundwater appropriations (9th Cir. 2010. United States v. Orr Water Ditch Co.; No. 07-17001 D.C. No.CV-73-00018-LDG). The analysis of drawdown arising from the proposed Project showed more than 10 feet of drawdown predicted for the headwaters of the South Fork of Henderson Creek. The DEIS categorizes the overlap of the 10-foot drawdown contour with a water resource (well, spring or stream) as a potentially significant impact that can be expected to decrease flow in the stream and the springs that provide the base flow to the stream as well as vegetation and wildlife habitat. While BLM has no jurisdiction over water rights, throughout the DEIS wherever senior water rights are predicted to be impacted by the Project, regardless of a court decree, the BLM must address adverse impacts to these rights and propose mitigation measures consistent with the BLM NEPA Handbook which states all "relevant, reasonable mitigation measures that could improve the project are to be identified, even if they are outside the jurisdiction of the agency."
**Disposition**: Comment acknowledged; does not provide new information

## Response

Comment noted.

## Letter 803, Comment 113

3.2.3.3.1 Page 3-81: The colors of the contour lines for Year 2065 and Year 2455 are too similar and are hard to distinguish, especially around the area of the mine. Please revise to make them easier to separate.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The contour line for Year 2455 is coincident with other contour lines around the open pit, and is generally not visible except in the area to the east and south of the open pit. No change has been made in the FEIS in response to this comment.

## Letter 803, Comment 114

3.2.3.3.1Page 3-85: The first full paragraph on 3-85 states that surface and spring water flows affected by the 10-ft drawdown are assumed to be interconnected with the regional ground water system, but the next paragraph asserts that springs within the Roberts Creek drawdown area "...are not hydraulically interconnected with the regional ground water system." This statement contradicts the assertion made in the previous paragraph and has no data to support the conclusion. Please revise for clarity and based on conclusions supported by data.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

CC-039-Assumptions of Scope of Impacts to Springs

## Letter 803, Comment 115

3.2.3.3.1 Page 3-85: Previous ADEIS comment (see 1734) was not addressed and BLM's response actually strengthens the need to incorporate the comment. It is dangerous to include only impacts to perennial springs as being analyzed or considered in the impacts and mitigation of impacts. Please revise to include our previous comment that, "Because a spring does not express itself perennially does not always mean that it is not primarily controlled by the regional ground water system. Connection to the regional groundwater system may be the component necessary to ever express these springs and seeps at the surface (i.e., intermittent). If ground water drawdown occurs at any of these types of springs or seeps, they may be impacted and never again express at the surface." Much of the habitat around these areas is in fact adapted to these intermittent expressions of the water at the surface. Account for this in the impacts analyses and describe adequately as recommended above.
**Disposition**: Other (SEE RESPONSE)

## Response

The word perennial has been retained because the analysis is based on the assumption that perennial springs are connected to the regional ground water flow system. Intermittent springs are assumed to be sourced from local, perched ground water that are not connnected to the regional ground water system. However, as discussed in the response to Comment #114 from Letter #803, it is conservatively assumed that all of the springs are connected to the regional aquifer.

## Letter 803, Comment 116

3.2.3.3.1 Page 3-86: BLM's response to previous comments (see 1737) was that the word "perennial" had been removed but the word "perennial" has not been removed as requested and committed to by BLM. Remove "perennial" in at least two locations in the impacts discussions on p. 3-86. Connection to the regional groundwater system may be the component necessary to ever express even intermittent springs and seeps at the surface. If ground water drawdown occurs at any of these types of springs or seeps, they may be impacted and never again express at the surface. Much of the habitat around these areas is in fact adapted to these intermittent expressions of the water at the surface. Account for this in the impacts analyses and describe adequately as recommended above.
**Disposition**: Other (SEE RESPONSE)

## Response

The word perennial has been retained because the analysis is based on the assumption that perennial springs are connected to the regional ground water flow system. Intermittent springs are assumed to be sourced from local, perched ground water that are not connnected to the regional ground water system. Please note that Section 3.2.3.3.1 of the EIS states that eight of 22 potentially impacted springs are considered to be perennial, while the discussion of impact 3.2.3.3-2 recognizes that all 22 springs within the projected area of 10 feet or more of drawdown are identified as potentially impacted.

## Letter 803, Comment 117

3.2.3.3.1 Page 3-86 and 3.2.3.3.2 Page 3-104: Why would BLM need to take more time to "evaluate the available information and determine whether mitigation is required" when it has already been determined (based on language directly above) that flow reductions already "are likely the result of mine-induced drawdown"? Please ensure that the analysis of these measures is sufficiently done in this NEPA process in order to facilitate effective, adaptive management and avoid unnecessary and burdensome additional evaluation.
**Disposition**: Other (SEE RESPONSE)

## Response

The BLM will use the results of the required monitoring to determine if or when mitigation measures will be triggered. As stated in the EIS under Mitigation Measure 3.2.3.3-3b, "mitigation would depend on the actual impacts and site-specific conditions" and cannot be fully anticipated at this time.

## Letter 803, Comment 118

3.2.3.3 Page 3-86: Many of the proposed mitigation measures themselves will require environmental review. Nowhere in the DEIS is there an analysis, rigorous or otherwise, of the potential impacts from the actions associated with the proposed mitigation strategies. The BLM NEPA Handbook (pg. 62) clearly states "During impact analysis, analyze the impacts of the proposed action (including design features) and with all mitigation measures (if any) applied, as well as any further impacts caused by the mitigation measures themselves." We request that BLM more thoroughly address the fact that many of the proposed mitigation measures themselves may require environmental analysis and discuss how the time to prepare and process the analysis might impact mitigation. Please provide the appropriate rigorous analysis of the potential environmental effects of each proposed mitigation measure throughout the DEIS regarding each resource in addition to just water. This is necessary to facilitate effective adaptive management.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The FEIS will include a map showing the location of the pipeline and any additional disturbance or facilities that would be required if ground water is pumped to mitigate decreased surface flows. Pumping ground water to mitigate for potential reduction of surface

water flow is only one mitigation option identified in the EIS. Potential impacts from implementation of mitigation are disclosed in Table 3.2-9 and Table 3.2-18 in the EIS.

## Letter 803, Comment 119

3.2.3.3 Page 3-87: Table 3.2-9 (as well as Table 3.2-18) defines the "trigger" for mitigation of impacts to surface water resources as "cessation" of flow. This is inconsistent with the text throughout Section 3 of the DEIS which states mitigation will be triggered by a "reduction" in flow attributable to the Project. If triggers are to be addressed, and it is imperative that they be clearly defined, then they must be consistent throughout the document, since any ambiguities or inconsistencies will obstruct mitigation of future impacts. Where a reduction of flow is proposed to trigger mitigation, a discussion regarding what constitutes an allowable reduction in flow must be provided for each and every source that is within the area where impacts are predicted to occur, including any resource for which pre-statutory rights (vested and subsisting rights) exist, even if claims of these rights have not yet been filed with the State Engineer. Because Nevada water law clearly protects senior vested, decreed, and senior water rights from effects by junior appropriators, the only acceptable trigger for mitigation of vested or decreed rights should be "any reduction" in the flow or discharge attributable to the Project. Please revise for consistency by adopting "reduction in flow" of any surface water resource (springs or streams) attributable to the Project as the trigger for mitigation in order to guarantee the rights associated with these sources are provided the protection afforded them under Nevada law. Specifically, change the trigger "cessation of flow" in Table 3.2-9 and 3.2-18 to "reduction in flow attributable to the Project." Modify each applicable subsection throughout the document to make it clear that reduction in flows of water sources associated will be mitigated.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-011-Monitoring and Mitigation

## Letter 803, Comment 120

3.2.3.3 Page 3-87: During a meeting in December 2011 between the Nevada State Engineer, EML staff and Eureka County regarding a 3M plan related to EML's groundwater appropriations, the Nevada State Engineer clearly stated that curtailing the pumping by the Project is a mitigation measure that is available under Nevada water law and is "on the table" in the event attempted mitigation unsuccessfully resolves an impact to a senior water right. Nowhere does the DEIS speak to this legitimate and appropriate mitigation measure. This remedy, which is authorized in the Nevada statutes, was brought to the BLM's attention in our comments to the two ADEIS. The BLM NEPA Web guide states "All relevant, reasonable mitigation measures that could improve the project are to be identified, even if they are outside the jurisdiction of the lead agency or the cooperating agencies, and thus would not be committed as part of the RODs of these agencies. Sections 1502.16(h), 1505.2(c). This will serve to [46 FR 18032] alert agencies or officials who can implement these extra measures, and will encourage them to do so. Because the EIS is the most comprehensive environmental document, it is an ideal vehicle in which to lay out not only the full range of environmental impacts but also the full spectrum of appropriate mitigation." Please make it explicitly clear that curtailing the Project's groundwater pumping is a mitigation measure provided in Nevada water law.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-128-Authority for Water Mititgation

## Letter 803, Comment 121

3.2.3.3.1 Page 3-87: Table 3.2-9 is directly at odds with and contrary to the text in many places. The table speaks to a trigger of being "cessation of flow coincident with reduction in ground water" but the text (and significance criteria) speaks of reductions of flow, not cessation. Having a trigger of "cessation of flow" is dangerous and much too liberal. Cessation of flow is the failure of the adaptive monitoring, management, and mitigation program. The purpose of monitoring is to detect an impact when it occurs. Waiting to implement mitigation only at cessation of flows is unreasonable and will unduly overlook real impacts since real impacts will occur with reductions of flow. Waiting until there is a cessation of flow will result in impacts occurring that at the state of flow cessation become unmitigable. Additionally, the effectiveness of mitigation spelled out in the Table cannot be correct since a water supply from the Project's wellfield cannot "provide a perennial water supply" given the fact that perennial means always and forever. Someday the Project will cease and the impacts are projected to occur for centuries at some locations. The mitigation trigger must be reduction in flows attributable to the Project. Please revise with this language.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-011-Monitoring and Mitigation

## Letter 803, Comment 122

3.2.3.3 Page 3-87: Tables 3.2-9 and 3.2-18 list springs with flows as high as approximately 70 gpm that fall within the predicted maximum extent of the 10 foot contour and, therefore, have a potential for "significant impact." Yet for some springs listed, mitigation involves replacing the natural spring flow (regardless of the measured flow) after it ceases to flow with 0.5 gpm piped from the mine's

Kobeh Valley water supply. The justification for such paltry measures that do not address the impact to a statutorily protected vested water right is not discussed, nor has any rationale been provided as to why only a small portion of the loss will be mitigated. Please revise to ensure that mitigation would restore any reduction in flow attributable to the Project to be consistent with Nevada Law that requires that new appropriations not impact vested rights.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-062-Mitigation of Diminished Water Flows

## Letter 803, Comment 123

3.2.3.3 Page 3-87: At the cooperating agency All Parties meeting in Battle Mountain in December 2010, the BLM declared it takes a minimum of three years to permit many, if not all, of the measures proposed for mitigation of the impacts to water resources predicted to occur as a result of the Project. Since Tables 3.2-9 and 3.2-18 state mitigation is not triggered until a water source ceases to flow, what happens to livestock, wildlife, wild horses, and water dependent resources in the meanwhile? What about the financial impact of the loss of the resource over many years until the loss is fully mitigated? Most likely livestock and wildlife will be pressed to over utilize nearby water sources and water-dependent resources (forage) while permits needed to implement mitigation are processed. This assumes, of course that the first mitigation attempt is successful. According to the BLM NEPA guidance "If the necessary mitigation measures will not be ready for a long period of time, this fact, of course, should also be recognized." The DEIS glosses over the fact that many of the mitigation measures may take a significant amount of time to permit and implement. Please revise to clearly disclose that some mitigation measures will take years to permit and implement and that the impact could get worse before mitigation takes effect and then frame what would be done by BLM to address this issue.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-011-Monitoring and Mitigation

## Letter 803, Comment 124

3.2.3.3 Page 3-87: Proposed mitigation must be practicable and ". . . to ensure that environmental effects of a proposed action are fairly assessed, the probability of the mitigation measures being implemented must also be discussed" (BLM NEPA Handbook). Unfortunately, many of the proposed mitigation measures summarized in Table 3.2-9 and 3.2-18 and discussed in Section 3 are far-fetched. For example, a "cessation" of stream flow in Henderson Creek during the period of active mining is proposed to be mitigated by an inter-basin transfer of groundwater from Kobeh Valley. Furthermore, this proposed mitigation measure will require peak diversion rates of up to 2,400 gpm and an annual usage of approximately 1,400 acre-feet of water in addition to the 11,300 afy of groundwater needed for the project. Yet, there is no assessment of the potential impacts in Kobeh Valley associated with this mitigation measure. NEPA requires that the impacts of all direct actions and cascading effects be analyzed. Please provide the appropriate level of analysis to demonstrate that a particular mitigation strategy is technically feasible and practicable, not just an opinion that it will be effective. As required, please analyze the potential impacts of the mitigation measures themselves.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-059-Impacts of Mitigation Implementation

## Letter 803, Comment 125

3.2.3.3 Page 3-87: What is the source of water rights needed for mitigation during active mining given that the Project proposes to consume all of the 11,300 acre-feet per year available under their current groundwater appropriations? EML testified during administrative hearings before the Nevada State Engineer that the project will consume all of the groundwater water they applied for (11,300 afy was applied for and the project is expected to consume all of this). In other words, EML (or its subsidiary KVR) has no surplus water to devote to mitigation. As a result, mitigation will require EML to file for new groundwater appropriations or change the point of diversion, place and manner of use of existing water rights they might acquire elsewhere in Kobeh Valley. This takes time and there is no guarantee that the water rights will be available, transferable, or grantable. This is especially true where the proposed mitigation measure is an inter-basin transfer of groundwater which requires even more oversight from the State Engineer. Please fully disclose that EML currently holds 11,300 afy of water rights for mining and milling purposes for the Project from all sources and that EML has testified in administrative hearings before the Nevada State Engineer that the Project as designed will consume all of this water. Therefore, the Project does not have sufficient water for this specific mitigation measure.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-082-Mitigation to Water Resource Impacts

## Letter 803, Comment 126

3.2.3.3 Page 3-87: Some proposed mitigation measures require inter-basin transfers. Proposed mitigation measures (see Table 3.2-9) for predicted impacts in Pine Valley (as defined by more than 10 feet of drawdown predicted at springs in the headwaters of

Henderson Creek and the perennial reach of the South Fork of Henderson Creek) during active mining involve an inter-basin transfer of water from Kobeh Valley to Pine Valley. The DEIS fails to disclose the ramifications of such inter-basin transfers. Permitting an inter-basin transfer takes time and time is of the essence with respect to the loss of a water supply or forage for livestock and wildlife; the animals simply cannot wait. Furthermore, neither the BLM nor the proponent can guarantee any assurance that the Nevada State Engineer will grant an inter-basin transfer for this purpose. How will impacts to wildlife, wild horses, and water dependent resources be overcome when this happens? How will grazing permittees be compensated for the loss of income until effective mitigation is in place? Please make the DEIS exquisitely clear that certain proposed mitigation measures will require an inter-basin transfer of groundwater and that the Proponent currently does not hold sufficient water rights to effect proposed mitigation measures. The discussion should provide a clear understanding of all the issues associated with inter-basin transfers, including compensation for the loss of a water source until mitigation is fully operational.
**Disposition**: Comment acknowledged; does not provide new information

## Response
CC-026-Water Mitigation for Pine Valley

## Letter 803, Comment 127

3.2.3.3 Page 3-87: Proposed mitigation for an adverse impact to senior water rights in the headwaters of Henderson following the end of mining (for example Mitigation Measure 3.2.3.2-2c and 3.2.3.5-2c) is even more far-fetched than those proposed for implementation during the life of the project. These proposed post-mining measures include constructing wells capable of yielding as much as 2,400 gpm in the Henderson Creek watershed. EML's consultants constructed a groundwater flow model (which BLM accepted as suitable for EIS analysis) using what they believe to be appropriate values for aquifer hydraulic properties based on their interpretation of the geology. In the headwaters of Henderson Creek, the available information indicates the geologic materials in this area are ". . . thought to have limited water production potential and . . . interpreted to typically act as an aquitard" (p. 3-44). In fact, ". . . these rocks typically are not targets for water production" (ibid.). Furthermore, the Project depends on these geologic formations being relatively impermeable to minimize potential impacts related to pit dewatering, in particular, and impacts to water resources in Diamond Valley, in general. Based on the aquifer properties assumed for the Project's groundwater model, wells with yields large enough to mitigate a "cessation" of stream flow should not be expected in the headwaters of Henderson Creek. This obvious conclusion is consistent with the analysis of pit dewatering impacts which shows the 2,500 feet deep pit, a humongous well in its own right, will likely yield the equivalent of only a fraction of the groundwater needed to mitigate the loss of stream flow in Pine Valley. In summary, the DEIS provides no analysis to suggest there is any likelihood that groundwater in sufficient amounts to mitigate a cessation of stream flow can be developed in the area where mitigation must take place, nor is there any analysis of the environmental consequences of these groundwater extractions proposed for mitigation. To complicate matters further, EML holds no water rights in Pine Valley that would be needed to mitigate any reduction of stream flow there after mining ceases, much less a total cessation of flow. Please provide a rigorous analysis that demonstrates this mitigation measure is technically feasible and practicable. Given the data and information used to construct the groundwater flow model, it is unlikely that analysis of this option will be able to support the mitigation measure as realistic.
**Disposition**: Comment acknowledged; does not provide new information

## Response
CC-026-Water Mitigation for Pine Valley

## Letter 803, Comment 128

3.2.3.3.1 Page 3-95: Spring 641, OT-7 is not unnamed, it is Nichols Spring. It is a vested water right claim located on private land that supports the grazing rights of Roberts Creek Ranch. First of all, the General Use column speaks of the spring as being "water supply for wild horses with limited livestock use" where, in fact, wild horses are not a legitimate use of this spring on private land and this spring is of primary importance to the grazing operations in this area. Secondly the mitigation proposes to take private property on private land and mitigate on public land. This is essentially a federally supported takings of private property. Please explain how this is justified? Revise with mitigation that would require that all springs, especially those on private land, must be mitigated in the same location.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-128-Authority for Water Mititgation

## Letter 803, Comment 129

3.2.3.3.1 Page 3-99: Most of the measures outlined would require further NEPA analysis and would contribute to the impact through a feedback loop. All references to "new water" or "new sources" should be removed as there will be no "new" water, but redistribution of water in the same hydrologic system. The BLM NEPA Handbook clarifies those impacts from mitigation measures themselves need to be fleshed out and disclosed. Each measure pursued would also require cultural clearances, environmental studies, ROW grants, etc. If Kobeh Valley is fully appropriated by the State Engineer, where would the water rights come from for these additional mitigation measures? These measures will create environmental impacts of their own. Also, when is the trigger point to finally curtail pumping (which may be the only realistic mitigation measure)? BLM responded to this previous made comment (1751) by stating

"The water right issue is not within the BLM's jurisdiction. The environmental impacts of the implementation of the mitigation have been included in the analysis" but this downplays and overlooks the responsibilities of BLM as outlined in the BLM NEPA Handbook. Specifically, on p. 62 of the Handbook it states, "Identifying mitigation outside of BLM jurisdiction serves to alert the other agencies" and "In describing mitigation under the authority of another government agency, you must discuss the probability of the other agency implementing the mitigation measure." BLM must provide some discussion of how water rights would be obtained for these mitigation measures. This comment applies to nearly every mitigation measure in the document that would require replacement of a surface water source. We will not make the same comment every time, but we request that the change be made throughout the document.

**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-128-Authority for Water Mititgation

## Letter 803, Comment 130

3.2.3.3.1 Page 3-99: The mitigation measures might be effective at providing flowing water, but the long-term effectiveness is diminished by the fact that all other sources proposed for mitigation have strict reliance on anthropogenic maintenance that generally declines through time and has no guarantee of happening, even with a long term trust account. This should be discussed in the document.

**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-094-Long-term Water Mitigation

## Letter 803, Comment 131

3.2.3.3.1 Page 3-99: Posting of an additional bond during "closure process" is not a reasonable mitigation measure for impacts that "may occur after the end of mining and milling operations." Sufficient funding must be in place before the Project ever starts to ensure funding is available throughout the Project to cover the worst case scenario and to account for the chance that "the end of mining and milling operations" is sooner than 44 years. What if EML or its successor owner chooses to walk away after only a few years based on issues or market conditions? Where is the mitigation guarantee for these circumstances (which have happened many times in Nevada and is the basis for some CERCLA "superfund" sites)? As we requested in our overview letter, please work out the very specific details of this funding mechanism and then describe in the EIS in great detail the mechanics involved in setting up and drawing from the long-term mitigation funding accounts.

**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-057-Funding for Reclamation/Closure Bond

## Letter 803, Comment 132

3.2.3.3.2 Page 3-100 and 3.2.3.3.2 Page 3-103: The wells described, 204 and 310, have at least a subsisting right to water livestock. See previous County comments related to subsisting rights to water livestock, as outlined in NRS 533.492 through 533.500. It is incorrect to consider impacts to wells 204 and 310 as "not deemed significant because neither one is associated with a valid and active water right." As pointed out on both ADEIS and again here, these wells are very important to the ranching operations associated with the current grazing permits. These sources have at least subsisting rights to water livestock, which are considered valid and active water rights. Further, depending on when these wells were put in, they could be vested water rights that require no record with the State Engineer in order to be valid or active. Overlooking these two wells overlooks real impacts to a livestock business operation, wildlife, and wild horses that use the water from these wells. Re-evaluate the impacts to these wells and include them in the mitigation.

**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-054- Impacts to Water Wells

## Letter 803, Comment 133

3.2.3.3.2 Page 3-101: The development of a pit lake is predicted to cause impacts (primarily drawdown) to continue to propagate into the headwaters of Henderson Creek for hundreds of years after mining ceases, potentially affecting surface water resources (springs and stream flow). Yet virtually no details of the analysis are provided in the DEIS, save for Figure 3.2.21 which provides a graphical summary of the water budget associated with the pit. The only way to gain even the most basic understanding of how the pit will affect the local groundwater flow regime is to delve into the local model report incorporated into Montgomery 2010 which is extremely cumbersome at best. Please provide additional discussion of the local model and how it was used to assess pit lake development.

**Disposition**: Comment acknowledged; does not provide new information

## Response

The pit lake model and ground water flow model are available for review at the Battle Mountain BLM office and are part of the administrative record. The EIS discloses impacts from the Proposed Action to surface water flows in Section 3.2.3.3.

## Letter 803, Comment 134

3.2.3.3.2 Page 3-103: As we previously requested, please place language from NRS that speaks to the protectable interest in domestic wells. Insert language that reads, "Through NRS 533.024, the Nevada Legislature declared the policy of the State of Nevada "to recognize the importance of domestic wells as appurtenances to private homes, to create a protectable interest in such wells and to protect their supply of water from unreasonable adverse effects which are caused by municipal, quasi-municipal or industrial uses and which cannot reasonably be mitigated." This will document how imperative it is for adverse impacts to domestic wells to be fully and effectively mitigated. Further, continuing to state that these wells are "undocumented" is incorrect. As we previously pointed out to BLM on both ADEIS, domestic wells are documented with the County Assessor and no effort was taken by BLM to research the documentation on these wells. Please carry this analysis forward to define where these wells exist and the impacts that could occur to these domestic wells and what would be required to mitigate these specific impacts.
**Disposition**: Comment acknowledged; does not provide new information

## Response

Potential impacts to domestic wells are discussed in Section 3.2.3.3.2 of the EIS. They are also subject to mitigation requirements under authority of the State Engineer. No changes have been made in the EIS in response to this comment.

## Letter 803, Comment 135

3.2.3.3.2 Page 3-103: As previously requested, please add the Roberts Creek Ranch domestic well into Table 3.2-10. Also add wells 204 and 310 since, as previously explained, they currently do have rights associated with them as the table title suggests, and they are wells that may be affected.
**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-054- Impacts to Water Wells

## Letter 803, Comment 136

3.2.3.3.2 Page 3-103: While it is a great improvement in the DEIS to acknowledge the jurisdiction of NDWR, there still is no effort to include NDWR in the process so all affected stakeholders and authorities are "on the same page." Eureka County has requested this effort for three years and we find the lack of response and effort by BLM to be disconcerting. We have spoken to the State Engineer's office, and documented our conversations, regarding some of the mitigation measures outlined in the DEIS and they voiced concern with some of the provisions and how they would be carried out. This magnifies our concern and shows how the process moving forward will be extremely difficult since the agency with primary jurisdiction over water resources, NDWR, is already showing hesitation for what the DEIS calls for in mitigation.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-128-Authority for Water Mititgation

## Letter 803, Comment 137

3.2.3.3.2 Page 3-103: It is not clear to us what the phrase "EML would assess the distance of the screened interval and the pumping below the ground water table" means. We are assuming that it means that the screened interval of the well would be compared to the drawdown of the water table tied to Project pumping and if Project pumping does not lower the water table enough to need a deepened well (or pump) then EML would just cover the increase in pumping costs. Please revise to clarify.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-052- Ground Water Pumping

## Letter 803, Comment 138

3.2.3.3 Page 3-103: The DEIS states ". . . ground water drawdown is predicted to exceed ten feet at the locations of seven wells with associated ground water rights." "Impacts to the seven wells . . . are potentially significant . . ." As discussed previously, monitoring (Mitigation Measure 3.2.3.2-3a) is referred to as a mitigation measure, which it is not. Mitigation Measure 3.2.3.3-2b (Page 3-104) goes on to describe several possible mitigation measures. One of these is "Infiltrating or injection water during operations at strategic locations to limit drawdown propagation in certain areas." There are a number of concerns regarding this proposed measure. First, EML/KVR holds 11,300 afy of groundwater rights for mining and milling purposes. EML testified during administrative hearings before the Nevada State Engineer that their project as designed will consume all of the groundwater allowed under these appropriations. Therefore, the Project does not hold sufficient water rights for this proposed mitigation measure. In order to implement

this measure, additional rights must be acquired. The acquisition of these rights takes time. This option would require EML to pump more than the 11,300 afy that has been analyzed as part of this DEIS and the required analysis of the impact of this action has not been analyze, much less an analysis to determine whether the measure is feasible or practicable. Per the BLM NEPA Handbook p. 62, please provide an analysis of the impact associated with pumping additional groundwater from the Kobeh Valley Central Wellfield needed to implement this proposed mitigation measure. Provide a rigorous analysis of the practicality and feasibility of the mitigation measures. Repeat the analysis for each of the appropriate alternatives.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-082-Mitigation to Water Resource Impacts

## Letter 803, Comment 139

3.2.3.3.2 Page 3-105: Please add "with concurrence from NDWR" or "in coordination with NDWR" to now read "...measures, as directed by the BLM in coordination with NDWR:" BLM may provide direction and make recommendations regarding mitigation but the NDWR has sole discretion on what would be required. The NEPA Handbook outlines that mitigation measures, even outside of BLM jurisdiction, must be credited to the proper authority to "alert the other agencies that can implement the mitigation" (p. 62).
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-052- Ground Water Pumping

## Letter 803, Comment 140

3.2.3.3.2 Page 3-105: There is nothing in place to ensure that the wells that provide stock water will continue to provide the necessary subsisting right to water livestock as required under NRS. For example, if EML were to purchase the affected water right rather than mitigate the water source itself, the subsisting right at these same locations would be taken away. Please revise to ensure that a subsisting stock water source remains at all locations where livestock (and wildlife and wild horses) currently water.
**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-048-Water Mitigation for Wildlife and Horses

## Letter 803, Comment 141

3.2.3.3.2 Page 3-106: Despite our previous comments, not all changes were appropriately made. 167 afa comes into Kobeh Valley from Pine Valley and this will change the amount of flow from the portion of Pine Valley out of the HSA so the "Entire HSA" column should be changed to reflect this. Both the table and the text overlook the possibility of interception of the flow between Kobeh Valley and Diamond Valley (1500 afa). If the pumping in Kobeh Valley is going to intercept ET (4015 afa), it must be expected to intercept the 1500 afa flow into Diamond Valley. Please account for the subsurface flow as described. Also, the decrease in groundwater inflow to Diamond and Kobeh Valleys due to pit lake evaporation (80% of 165 afa or 132 afa in DV and 20% of 165 afa or 33 afa in KV) must be included in the water budget (tables and text). The text and tables downplay the impacts to basin water budgets and are not defensible as currently presented.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The column labeled "Entire HSA" indicates inflows and outflows to the study area. The comment regarding Pine Valley flows to Kobeh Valley resulting in an outflow from the HSA is incorrect. The change in flows between hydrographic basins does not necessitate HSA boundary flux changes. For example, the increase in Pine Valley flow to Kobeh Valley predominantly reflects subtle shifts in the flow field simulated near hydrographic divides, which are fixed lines based on land surface topography. Net change in flow between Kobeh Valley and Diamond Valley as simulated in the model is accurately reported in Table 3.2-11, being a gain of 15 acre-feet per year at 2055. This number consists of two components – pit area flow and regional flow. The regional flow component is an interception of 25 AF/yr out of a simulated flow between the basins of 2,380 AF/yr at year 2055. The cumulative pit lake water balance is incorporated in the hydrographic basin water balance and resulting changes in flows are reported in Table 3.2-11. The pit lake evaporation values in the comment are not applicable for year 2055 – but reflect equilibration conditions of pit that occur much later in time.

## Letter 803, Comment 142

3.2.3.3.2 Page 3-106 (and Page 3-136): Please explain how the change in groundwater budget is reported as being the same for the Proposed Action and the Partial Backfill Alternatives in 2055 and 50 years post-project. Given the hundreds of years until the water reaches some kind of equilibrium, water budgets must be analyzed and reported further into the future to take into account all potential groundwater budget impacts and outline appropriate mitigation measures.
**Disposition**: Comment acknowledged; does not provide new information

## Response

Changes in the ground water budget rates for the Proposed Action /No Action comparison (Tables 3.2-11 & Table 3.2-12) and changes in ground water budget rates for the Partial Backfill/No Action comparison (Tables 3.2-15 & Table 3.2-16), at end of mining 2055 and 2105, are not the same. For example, net change in outflow for Diamond Valley at 2105 for the Proposed Action/No Action comparison is -65 afy (Table 3.2-12) and is -51 afy for the Partial Backfill/No Action comparison (Table 3.2-16). Other ground water balance rate change components show similar incremental differences. The relatively minor differences in the values for these sets of comparisons demonstrates that it is not necessary to report water budgets for the Partial Backfill alternative further into the future in order to provide a useful analysis of impacts.

## Letter 803, Comment 143

3.2.3.3.2 Page 3-106: These tables highlight how there is lack of common sense and consistency in many aspects of the analysis. We brought this up in both previous ADEIS. On page 3-108 it speaks to groundwater evaporation at the pit to be 165 gpm which equates to about 264 afa. How then can the table report ET of groundwater be only reduced by 52 afa in Diamond Valley? Also, with the decrease in precipitation recharge and the evaporation that occurs because precipitation that will fall on the TSFs and in the pit sink and become unavailable for recharge into each basin, it is impossible for the precipitation recharge change to be zero under the proposed action. Please re-analyze and make proper changes accordingly.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

Tables 3.2-11 and 3.2-12 correctly report the ET values for Diamond Valley water budgets projected by the hydrologic model. The text on page 3-108 (Consumptive Losses) explains that, for the Proposed Action, consumptive loss of groundwater due to pit lake evaporation would be 165 gpm after 100 years of pit filling (year 2144) and 100 gpm after 800 years of pit filling (year 2844). The 52 afa ET reduction in Diamond Valley shown on Table 3.2-11 is for the Proposed Action at year 2055, which is the end of operations and is not comparable to rates described on page 3-108 for 100 and 800 years post-mining. In year 2055, the ground water system is not projected to be at equilibrium and the projected pit ground water inflows, at over 200 gpm, are substantially larger than the projected 52 afa (32 gpm) ET reduction (Figure 4.5-7; Montgomery et al. 2010).

Ground water inflow to the pit at 2055 and 2105 is 371 AF/yr and 286 AF/yr, respectively. This ground water inflow to the pit was not included in the Table 3.2-11 and 3.2-12 water balance calculations. To disclose this change that would occur relative to the No Action Alternative, the amount of ground water that flows to the pit will be added to Tables 3.2-11, 3.2-12, 3.2-15 and 3.2-16 in the row labeled "Net Ground Water Pumping" and an explanatory footnote will be added.

The precipitation recharge values in DEIS Table 3.2-11 have been corrected to show -38 AF in Kobeh Valley (lack of recharge occurring in the Kobeh Valley portion of the pit) and -226 AF of recharge reduction at the lined PAG adjacent to the pit in Diamond Valley. These recharge reductions are incorporated in the numeric flow model and reflected in other water balance flow changes presented in Table 3.2-11. No reduction in recharge has been simulated in the model for the TSF areas, because the initial recharge input in the TSF area is very low (less than one AF/yr). This is because a portion of the TSF is situated on the valley floor where it is assumed that no recharge takes place and the remaining portion is situated on an alluvial fan environment which is assigned a very low recharge rate in the model. Thus the reduction in recharge by the TSF is not deemed hydrogeologically significant enough to represent as a change in the model.

## Letter 803, Comment 144

3.2.3.3.2 Page 3-108: It still appears that the calculation for groundwater evaporation from the pit may be incorrect. The amount reported in the description and Impact 3.2.3.3-6 must actually be net evaporation of all water that flows to the pit, including precipitation run-off. If true, this analysis obfuscates the issue of evaporation of groundwater. The established pan evaporation rate from the nearest location, the UNR Gund Ranch, is 51.17 inches per year. A rough calculation of the pit lake surface area compared to this evaporation rate appears to us to possibly be much higher than reported. Please re-visit and better explain how just groundwater evaporation was separated out of net evaporation from the pit lake and how it was calculated and justified as it seems very low for the projected pit lake surface.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

As shown on Figure 4.5-7 (Montgomery et al. 2010) the 100 gpm described in 3.2.3.3-6 is the simulated ground water inflow to the pit at equilibrium, which is then lost to evaporation. The pit-lake is predicted to behave as a hydraulic sink and water that reports to the pit lake will be lost to evaporation. The ground water lost to evaporation is considered to be the amount consumptively used by the pit. To disclose this change that would occur relative to the No Action Alternative, the amount of groundwater that flows to the pit wasadded to Tables 3.2-11 and 3.2-12 in the row labeled "Net Ground Water Pumping" and an explanatory footnote was added.

Also provided on Figure 4.5-7 is the simulated lake evaporation, which reached an equilibrium value of approximately 375 gpm. This amount was determined by the model using a specified lake evaporation rate of 37.46 in/yr, which was derived from the average of the Class A Pan evaporation rates from Ruby Lake (51.46 in/yr) and UNR Beowawe Experiment Station farm (51.17 in/yr), multiplied by

a pan coefficent of 0.73 to convert the pan evaporation rate to a lake evaporation rate. Section 4.5.2.1 of the Modeling Report presents this explanation.

## Letter 803, Comment 145

3.2.3.3. 2 Page 3-108: The DEIS improperly determined evaporative consumptive use as a beneficial use. The bulk of the consumptive use of the Project water comes from evaporation at the TSF and the pit lake. Neither the Nevada water law statutes nor the NDWR have ever defined (or we argue accepted) evaporation as a beneficial use. How is this consumption determined to be beneficial in the context of the EIS (if at odds with NDWR)? The DEIS must not inappropriately use terms that have very specific meaning according to Nevada state laws. Additionally, this evaporation of water is directly in conflict with our county Master Plan that mandates that water extracted for mining be used "in a manner that returns water to the ground in the same basin it is withdrawn with minimal evaporation and transpiration loss" (p. 6-55). Please revise to remove language of evaporation being a beneficial use and clearly state that the large evaporative losses of water due to the Project are inconsistent with our Master Plan.
**Disposition**: Comment acknowledged; does not provide new information

## Response

Mining is a beneficial use under Nevada water law and the distribution of processed material in the TSFs are part of the mining use. Evaporation caused by the mining use of water is not contrary to Nevada law.

## Letter 803, Comment 146

3.2.3.3.2 Page 3-108: The DEIS fails to get to the heart of the issue identified by Eureka County for both previous ADEISs (see 1772 and 1773) regarding locally defined adverse impacts. As we previously stated, we strongly request that the DEIS include the following language, "If monitoring detects adverse impacts to the overall groundwater available in Diamond Valley attributable to the Project, EML would implement the following mitigation measure." Then frame a mitigation measure to read, "EML would purchase and retire at least an equal amount of currently pumped water in Diamond Valley in coordination with the NDWR." As currently written in the DEIS that "changes are less than 0.1 percent" underscores why percentages do not always tell the whole story, especially for reductions in a severely over allocated basin. Significance must be directly related to the situation on the ground and BLM should weigh the current situation of over-appropriation (and permitted over-pumping) in Diamond Valley when determining significance. Any impact to Diamond Valley is considered adverse to Eureka County and Diamond Valley residents—the people and businesses most directly affected who rely on a tenuous water supply.
**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-051- Locally Defined Adverse Impacts

## Letter 803, Comment 147

3.2.3.3.2 Page 3-109: The significance of this impact directly and perfectly meets one of the significance criteria outlined on p. 3-63 of "A long-term consumptive use of a water resource that does not provide a beneficial use." How does pit lake evaporation for perpetuity out of an over-appropriated and over-pumped basin not meet significance or require mitigation? The significance of this impact is the same as EML drilling a new well in Diamond Valley (or Kobeh Valley) and consumptively pumping it in perpetuity. BLM should require a mitigation measure: "EML will be required to permanently retire an equal amount of currently pumped water in both Diamond Valley and Kobeh Valley to offset the amount of groundwater evaporation out of the pit lake from each basin."
**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-009-Water Rights

## Letter 803, Comment 148

3.2.3.3.2 Page 3-109: The DEIS states "Diamond Valley...provides a useful analogue for estimating future potential impacts due to [subsidence associated with] increased pumping in Kobeh Valley under the Proposed Action." In Diamond Valley, fissures in and around the southern portion of the playa apparently related to groundwater pumping are located well beyond the 10 foot contour of drawdown associated with agricultural pumping. These fissures are also located outside of the areas of greatest subsidence. However, fissuring of basin-fill deposits in Kobeh Valley is said to be ". . . expected to occur in the areas of greatest subsidence (the KVCWF area)..." (p. 3-113). If Diamond Valley is truly an analogue for Kobeh Valley, fissures related to subsidence should be expected outside of the area of greatest subsidence and in areas where drawdown is due to wellfield pumping. Since the DEIS concludes Diamond Valley is an analogue for fissuring due to subsidence in Kobeh Valley, the DEIS needs to be modified to incorporate the occurrence of fissuring in Diamond Valley in areas remote from the areas of greatest subsidence.
**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-051- Locally Defined Adverse Impacts

## Letter 803, Comment 149

3.2.3.3.2 Page 3-110: The analysis related to subsidence fails to acknowledge the fact that subsidence can collapse fractures or orifices that provide for spring/seep flow. Please include analysis to define the potential impacts related to this. The significance criteria outlined on p. 3-63 speak of modification of surface and groundwater flows that can both be impacted by subsidence yet there is nothing analyzed to address this. Also, as we have continued to point out multiple times over the past few years (see previous ADEIS comment 1780), there is no broad scale monitoring proposed to detect real subsidence as opposed to predicted subsidence. How will anybody ever know if there are subsidence related issues (in addition to simply looking for fissuring) attributable to mine pumping? Please add sentence to read, "EML would be required to implement broad scale subsidence monitoring using InSAR data to compare against subsidence prediction methodology. If monitoring detects subsidence that significantly alters aquifer storage or water flow paths, EML will be required to implement the following mitigation measure." Then frame a mitigation measure to address what would be required if the impact were found to be significant. One mitigation measure should read, "If it is determined that subsidence related to Project groundwater pumping changes the storage capacity or yield of any groundwater aquifer, EML will be required to offset the groundwater loss through retirement of currently pumped water rights."
**Disposition**: Comment acknowledged; does not provide new information

## Response

There are no springs located within area of subsidence projected for the Proposed Action. Some compaction of inelastic storage (non-recoverable) is associated with all pumping of a significant magnitude that occurs in basin fill materials. However, the degree of projected subsidence from the proposed project is not expected to affect aquifer storage and production properties, based on substantially greater pumping in the adjacent Diamond Valley and no evidence of substantially affected aquifer productivity in that basin.

Mitigation Measure 3.2.3.3-8 outlines the monitoring for fissure gullies and mitigation for filling fissure gullies if they form.

## Letter 803, Comment 150

3.2.3.3.2 Page 3-110: A simple statement and analysis that subsidence-related fissure gullies could damage "mining facilities" fails to address what would be required if the TSFs were impacted due to subsidence. The DEIS should disclose the real possibility that subsidence could be more serious than just some fissures to be filled with alluvium. Please frame what would be done if the TSF "mining facilities" experience subsidence. This is a major oversight.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The TSFs are constructed on areas composed of paleozoic stratigraphy and thin alluvial deposits. In addition, the subsidence associated with the predicted drawdown from Project pumping remains west of the bedrock ridge along Roberts Creek which is over four miles from the TSFs. There is not a resonable expectation for subsidence to occur in the areas of the TSFs. In addition, the alluvial deposits are likely too thin to develop fissuring.

## Letter 803, Comment 151

3.2.3.4 Page 3-113: Previous ADEIS comments were not adequately addressed (see 1783). Under every impact associated with the No Action Alternative in section 3.2.3.4 there should be discussions on what third parties are currently doing to address the impacts. Irrigators in Diamond Valley are pursuing ways to conserve water and possibly retire water. (There has been formal formation of a conservation and working group, DNRPCA, to do exactly this). Also, EML themselves have formally created an Agriculture Sustainability Trust with a stated intention of retiring 11,300 afa of water. Further, Eureka County is (and has been working for almost 2 years) working on a comprehensive water resources plan and policy to address some of the over-appropriation issues. Because of these measures, impacts would not continue as is happening "currently." BLM responded to our previous ADEIS comments regarding the same by stating "The inclusion of ongoing activities…are not enforceable by the BLM and does not provide any relevant information from the BLM to use in their decision process." This statement cannot be taken as valid because the No Action Alternative is analyzed regardless of BLM jurisdiction.
**Disposition**: Not within document/decision scope (SEE RESPONSE)

## Response

Although the activities described by the commeter may be ongoing, no approved plans or adopted policies have been provided to the BLM regarding these efforts. Inclusion of any of the targeted results in any of the alternatives would be purely speculative at this time. No change has been made to the EIS in response to this comment.

## Letter 803, Comment 152

3.2.3.5 Page 3-127: Figure 3.2.26 is a good representation of why the Partial Backfill Alternative would prove necessary to protect the decreed water rights of Henderson Creek which, according to the recent 9th Circuit decision, cannot be impacted. This also shows that the dewatering has more effect on Pine Valley that previously discussed in the text. The DEIS speaks of water in the pit being derived from only Kobeh and Diamond Valleys, but this figure shows that there is a direct connection to groundwater in Pine Valley and that water that ends up in the pit comes from Pine Valley as well. Revise to make this clear throughout the document.

**Disposition**: Comment acknowledged; does not provide new information

## Response

As stated in response to Comment #114 from Letter #803, diminution of surface water flows in the area of the projected 10-foot ground water drawdown contour from the Proposed Action is not anticipated, but conservatively included as a potential impact. Only the upper portion of Henderson Creek has a ground water connection (spring discharge) that supports a perennial base flow in the mountainous portion of the stream. This groundwater source is from the high altitude watersheds on the Roberts Mountains, as opposed to the Mount Hope area. Base flows provided from the springs are not sufficient in magnitude to provide a water source to the valley floor irrigation areas in Garden and Pine Valleys. Stream flow monitoring indicates that Henderson Creek at the points of irrigation diversion for the decreed rights is intermittent, becoming dry in the summer. However, Henderson Creek is observed to produce significant seasonal runoff associated with snow melt and precipitation, which is interpreted to be the source of water for the decreed water rights. This seasonal runoff source of flow would not be affected by the Proposed Action.

The Table 3.2-11 in the EIS correctly shows the projected changes in ground water inflow from Pine Valley as a result of the Project. These changes include 55 afy that would flow to Diamond Valley and 167 afa that would flow to Kobeh Valley. Some portion of this flow may report to the open pit.

## Letter 803, Comment 153

3.2.3.5 Page 3-127: The EIS analyzes the maximum 10-ft drawdown for 400 years after mining ends for the Proposed Action. The EIS should provide the same analyze for the Partial Backfill Alternative to facilitate comparisons of similar timeframes.
**Disposition**: Comment acknowledged; does not provide new information

## Response

Figure 3.2.26 shows the maximum extent of drawdown for the Partial Backfill Alternative.

## Letter 803, Comment 154

3.2.3.5 Page 3-127: Figure 3.2.26 shows that the Partial Backfill Alternative has the potential to have less of an impact on the perennial flow of Henderson Creek and potentially may impact one less spring compared to the Preferred Alternative. The DEIS should not give short shrift to alternatives that have the potential for less impact on the environment, even if the alternative is not the Preferred Alternative.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The text in section 3.2.3.5.1 specifically identifies the springs that would not be affected by the Partial Backfill Alternative.

## Letter 803, Comment 155

3.2.3.7 Page 3-145: Eureka County continues to be displeased that unlike many other aspects of the modeling effort, as a cooperating agency, Eureka County requested and was denied access to the model files developed to evaluate the Slower, Longer Alternative. A satisfactory explanation by the BLM and EML for this denial is requested to be provided here, since commenting on this Alternative has been and is hampered by this unprecedented denial of access to the model files.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The BLM has provided Eureka County extensive information on the hydrology modeling throughout the NEPA process. Eureka County was given access to the model files for the model runs that projected effects from the Proposed Action, and the county was able to run the model to scrutinize the predictions in detail. Eureka County was offered the opportunity to meet with EML's and BLM's hydrologists to observe and review operation of the model that was developed for the Slower, Longer Alternative. Eureka County was provided with copies of the various iterations of the hydrology modeling report and was given the opportunity to provide comments on this baseline report as it evolved throughout the NEPA process. In fact, numerous changes were made to this baseline report specifically to incorporate Eureka County's comments. Eureka County was provided with all of the other hydrology-related reports that were integral to the hydrology modeling, and was provided opportunity to comment on those reports. Thus, sufficient information has been provided to allow Eureka County to adequately review the impacts for the Proposed Action and alternatives, including the Slower, Longer Alternative, and all of those comments have been considered. Apart from asking to review additional information, the comment provides no indication that any erroneous conclusions stem from the modeling for the Slower, Longer Alternative. In fact, the modeling for this alternative, as summarized in the EIS, indicates that impacts would be similar to those of the Proposed Action, which is to be expected as the total volume of water pumped would be similar.

## Letter 803, Comment 156

3.2.3.7 Page 3-145: Nearly every resource analyzed under the Slower, Longer Alternative speaks to impacts that would be the same, or similar to the proposed action. This is not a correct analysis of impacts. Impacts occur over space and time and the rate of the impact has a major bearing on its significance. The cumulative impacts may be the same, but it is the rate of impacts that would be tempered by the Slower, Longer Project and this would attenuate impact magnitude and potential significance. The DEIS's entire

analysis of the Slower, Longer Project is subjective, questionable, and goes against pure common sense because in all cases, it is determined that the impacts would either be the same, similar, or worse. The analysis appears to be framed in a biased way to lead the reader and the BLM to "come on board" with the Proposed Action. As we previously requested, please re-analyze in a fair and objective way in order to give more bearing and consideration to the day-to-day and year-to-year impacts as requested by the locally affected people and Eureka County.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The text in Section 3.2.3.7 states that impacts from the Slower, Longer Project Alternative would have "similar potential water quantity impacts as the Proposed Action (Section 3.2.3.3); however, these impacts would occur over different time frames due to the decreased ground water production on an annual basis, but over a longer time period." The analysis in the EIS discloses the full scope of impacts for each alternative and resource and cannot solely focus on the impacts over time frames such as daily or annual time periods. The BLM objectively analyzed the impacts of this alternative within the EIS and provided an accurate description of the impacts.

## Letter 803, Comment 157

3.2.3.7.1 Page 3-146: Please add "and therefore, the day-to-day and year-to-year impacts would be less" to the paragraph to make it clear that the impacts "...shifted in time due to the timing of activities under this alternative" on a day-to-day basis would be less.
**Disposition**: Comment acknowledged; does not provide new information

## Response

This section discusses impacts to Erosion, Sedimentation, and Flooding within Drainages. The concept in the comment of "less day-to-day impacts" does not translate to these types of impacts as the commenter has applied to other water production related comments on the Slower, Longer Project Alternative.

## Letter 803, Comment 158

3.3 Page 3-169: One very concerning aspect regarding the geology at Mt. Hope that we have is the lack of acid neutralizing capacity. We do not believe that the analysis is adequate to conclusively make the determination that there will not likely be acid generation, acid run-off, or acid drainage. From our review, we believe that acid generation is possible in the pit lake and has a higher likelihood in the PAG WRDF. Without sufficient neutralizing ability, there is the potential for long-term water quality issues that must be addressed now to ensure enough financial funding is available and management options are contemplated to address this potentially perpetual problem.
**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-101-Waste Rock Characterization Adequacy

## Letter 803, Comment 159

3.3.3.3.1 Page 3-198: Although the document now reads that the design plan would be submitted to BLM 24 months prior to construction, the change and action previously requested (see ADEIS comment 1811) were not fully addressed. This diversion structure would serve a valuable purpose in reducing the potential for surface water contamination and the design should be included and committed to in the EIS so that it may undergo public review. Please revise text to match response by BLM, primarily "The 24-month time frame was to allow sufficient time for the application processing by the BLM and the NDEP. This would be an amendment to the Plan and the BLM would conduct an appropriate level of NEPA analysis prior to approval." This will also show that even after 13 PoO amendments, more will be coming to address current shortcomings.
**Disposition**: Other (SEE RESPONSE)

## Response

Public review will be accommodated during the process to permit this structure through BLM and NDWR (via the Dam Safety Permit process). No change has been made in the FEIS in response to this comment.

## Letter 803, Comment 160

3.3.3.3.1 Page 3-205: Mitigation measure 3.3.3.3-2 that references Mitigation Measure 3.2.3.3-2 is not correct. Simply restoring flows to Roberts Creek will not ensure mitigation of degraded water quality. Stream water quality is composed of many complex factors including, but not limited to, dissolved oxygen, turbidity, temperature, and pH and the state of stream quality can change dramatically when thresholds are crossed. There needs to be analysis and description of how water quality would be replicated in addition to just providing flowing water.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

Mitigation measures are designed to provide the same surface water resources and services, but mitigation does not require that the preexisting conditions be replicated exactly. Changes in water quality as the result of flow changes would not be an impact specific

solely to the proposal, but also result from natural flow variations and other sources of impacts. Should impacts result from the proposal, supplementing the flows near the source for the streams should provide comparable waters. This is based on the fact that any impact to stream flows, should it occur, would be the result of capture of spring fed sources that are connected to the regional ground water that was lowered by the Project. That is, the source of the affected surface waters would not be from precipitation and snow melt runoff. Should this impact occur, mitigation would consist of replacing the ground water-supplied surface water with ground water from the same general vicinity. Therefore, expected water quality impacts in the potentially affected reaches under the mitigation scenario are well within current levels of variation.

## Letter 803, Comment 161

3.3.3.3.2 Page 3-205: "NAG" should be "Non-PAG"
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

This edit has been made in the FEIS.

## Letter 803, Comment 162

3.3.3.3.2 Page 3-205: There is a sentence that is confusing and does not make sense. Please revise. Sentence currently reads, "Mn is already found at levels elevated above regulatory standards and above the level of Mn in ground water beneath the site." We are assuming that the document is trying to say, "Mn is already found at levels above regulatory standards in ground water beneath the site."
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The text in the FEIS has been revised to read as follows, "Mn is already found at levels above regulatory standards in ground water beneath the site."

## Letter 803, Comment 163

3.3.3.3.2 Page 3-205: Significance criteria speak to any degradation of water quality. Statements that since certain constituent levels are already above regulatory standards, there is no impact, are misleading and downplay potential impacts. The Proposed Action should be measured against the baseline to determine the impact, and in the case of many constituents, the Proposed Action does degrade the water quality (even if only further above the standard). Re-analyze to determine impacts related to the baseline and frame mitigation to address the degradation of water quality tied to the Project regardless of the status of the water quality now.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The following text has been added to the end of the last paragraph in Section 3.3.2.2.2, "The samples of ground water from the Project Area consistently exceeded the Nevada reference values for Mn, with values that range from 0.0076 to 25 mg/L. Less frequent exceedances, but still numerous, were Fe, Al, pH, SO4, TDS, and F (SRK 2008a)." In addition, the text in the first paragraph under Section 3.3.3.3.2 has been revised to read, "Mn values are already found at levels above regulatory standards (0.0076 to 25 mg/L) in ground water beneath the site and the levels in the potential seepage would be simillar to the existing water quality values beneath the site. Therefore, the Mn in the draindown ...".

## Letter 803, Comment 164

3.3.3.3.2 Page 3-206: Although there may be a "low potential for impacts to ground water quality due to drainage from tailings…and waste rock" there is still a potential for significant impacts. Please add "If drainage were to occur, the impact would be significant" and add a mitigation measure to address the impact. The DEIS must disclose the possibility of environmental impacts and not hide behind arbitrarily defined "potentials." The BLM NEPA Handbook supports our position by describing that "impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence…and is within the rule of reason." There have been examples of tailings dam failures due to catastrophic events throughout the world and here in the West. Therefore, it is within the "rule of reason" to be risk averse and expect that a failure could occur.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The analysis in the EIS does not support the commenter's conclusion of the significance of the impact. The NEPA does not require the analysis of hypothetical effects.

## Letter 803, Comment 165

3.3.3.3.3 Page 3-206: BLM never responded to our review of the baseline geochemical modeling of the pit lake provided to BLM in November 2008 or our subsequent comments on the ADEIS. The DEIS fails to discuss or address our concerns related to the geochemical modeling effort. We are concerned with how dissolved oxygen was handled in the model. To elaborate, the dissolved

gas, carbon dioxide, was reasonably set fixed to sub-atmospheric equilibrium partial pressures. This was in contrast to dissolved oxygen, which instead of setting it fixed to a sub-atmospheric partial pressure, was tied to a fixed oxidation reduction potential (pe). This was done because setting the dissolved oxygen as an equilibrium phase resulted in extreme pe values that are generally not reflective of natural systems. However, this modeling effort also resulted in dissolved oxygen concentrations that are generally 30 to 40 orders of magnitude less than would be predicted in a lake open to the atmosphere.
Another potential modeling concern is that it was assumed that all of the ore (and reactive sulfides) would be removed during mining operations and that these ore materials would therefore not react with groundwater and surface water filling the lake. It is highly unlikely that all of the sulfides exposed during mining operations will indeed be removed. Additionally, exposure of these sulfides to dissolved oxygen, at concentrations indicative of most surface waters, would result in additional acid generation, metal leaching, and reductions in the adsorption of trace elements onto precipitated solids. During the sensitivity analysis, this concern was partially addressed through the use of groundwater inflow indicative of water quality collected from a well installed within the mineralized zone of the ore body, which resulted insignificantly lower pH and generally higher metals concentrations. Although direct oxidation of sulfides was not considered, the use of this groundwater may provide an indication of direct ore interaction with the resulting pit lake, provided the groundwater system is at a similar redox state as that expected for surface water. Additionally, we fully recognize that predicting the volume of such remaining sulfides is problematic, but some attempt to quantify the impact of any remaining acid generating material should be considered in the context of oxygenated waters.
In addition to the question raised above, the sensitivity analysis indicates that the predictive pit lake geochemical model is sensitive (some larger than others) to the scaling factor used, early and late stage leaching results, and the occurrence of mineralized water (from the ore body). Whatever the outcome of the model, it is our request that significant monitoring efforts be employed to assess the lake geochemistry, once mining operations have ceased, and that funding be reserved for corrective actions that may be required. Additionally, once mining operations begin, the dewatering chemistry should be tracked and the model revised, incorporating these "real" data, providing the mine and the people of Eureka County better foresight into how this system may look after mining operations have ceased. Additional efforts into quantifying the impacts of the effects of realistic dissolved oxygen concentrations within the pit lake and how this may affect pit lake geochemistry and potential sulfide oxidation should be considered, or at least the assumptions employed explained further and in more detail. At this time it is unknown as to whether such efforts will or will not result in a significant departure from the conclusions presented in the DEIS and we request further evaluation and discussion.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The pe and dissolved oxygen were considered on multiple levels for this model. Left unchecked, the model projects a pe level that is considered too high for a Nevada pit lake and approaches the upper stability for water. This was adjusted down in the model so that excessive amounts of oxide and sulfate minerals did not precipitate. One way to adjust the pe is to allow oxygen to come out of solution (from a few mg/L to zero mg/L). While dissolved oxygen was allowed to come out of solution, the overall lake redox potential was within a reasonable range. This resulted in a realistic and even slightly conservative estimation of mineral precipitation. Increasing the pe and/or oxygen levels would have resulted in additional metals mass being removed from the pit lake.

It was not assumed that all reactive sulfide material will be removed from the pit at the end of mining. On the contrary, Figure 3.3.10 of the FEIS indicates the areas of the final pit wall that have been defined as potentially acid-generating material (PAG) based on the reactive sulfide material content. The water quality of runoff/submergence from these PAG areas is included in the pit lake modeling.

## Letter 803, Comment 166

3.3.3.3.3 Page 3-206: The analysis of the chemical quality of the pit lake water and pit lake water quality impacts state that several water quality standards will be exceeded although the overall quality of the water is expected to be generally good. This degradation is not expected to be significant because access to the pit by humans and livestock will be restricted and the mine does not intend to stock the lake with fish. Therefore, no mitigation is proposed. However, predicting pit water chemistry carries a level of uncertainty. For example, the pit water chemistry at Lone Tree has been different from predictions and more than $1,000,000 per month has reportedly been spent by Newmont attempting to positively affect pit water chemistry. The DEIS must explicitly state what will be committed to monitor the chemical quality of the pit and provide financial assurance to address mitigating unforeseen impacts to pit water quality. Please provide an analysis of measures to mitigate impacts to pit water quality.
**Disposition**: Comment acknowledged; does not provide new information

## Response

Using the Lone Tree pit lake as an analogous condition does not recognize the significantly different hydrologic conditions at that location versus the Mount Hope location. The Water Pollution Control Permit issued by the Nevada Division of Environmental Protection - Bureau of Mining Regulation and Reclamation includes monitoring during operations and for up to 30 years following reclamation. The BLM can also require an Amended Plan of Operations and additional financial guarantees if conditions warrant.

## Letter 803, Comment 167

3.3.3.5.1 Page 3-219: High runoff was a real concern with the pit wall runoff previously in the DEIS, but not considered in the TSF. This highlights why we believe it is unreasonable to wait for a TSF diversion structure design plan to come sometime in the future. Relying on a future plan does not address impacts that could occur. Please ensure that this plan is developed now and submitted for public disclosure and review prior to a ROD.

**Disposition**: Comment acknowledged; does not provide new information

## Response

The EIS adequately analyzes the potential impacts from run-on into the TSF and discloses that construction of a diversion structure will be required to minimize this potential.

## Letter 803, Comment 168

3.3.3.5.3 Page 3-220: States that "While a specific water balance has not been developed for the ground water entrained in the backfill, it is expected that this water quality would exceed Nevada drinking water standards." The table gives predicted backfill water quality at 210 years. However, on p. 3-221, 3rd paragraph, it states that "Eventually the throughflow water would resemble a mixture of upgradient ground water, percolation of precipitation through the backfill, and open pit wall runoff." Please add a sentence to clarify that the throughflow water will exceed Nevada drinking water standards.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The following sentence has been revised in the FEIS to read as follows, "Eventually the throughflow water would resemble a mixture of upgradient ground water, percolation of precipitation through the backfill, and open pit wall runoff, which would exceed Nevada drinking water standards."

## Letter 803, Comment 169

3.4.2.4.11 Page 3-241: We believe extending the significant digits to more than one is correct in regards to the disclosure of "Up to 2.708 billion tons." See how BLM reporting of large figures here (3 significant digits) is at odds with usage earlier in section 2.1 in which we have made comments on both ADEIS and again here in the DEIS. When reporting such large amounts (billions) please report at least 2 significant digits.
**Disposition:** Comment acknowledged; does not provide new information

## Response

It is standard scientific practice to use a specific number of significant digits depending on the accuracy of the data reported; therefore, uniformity throughout the FEIS is not required. Additionally, the BLM has determined that the accuracy of the figures in the FEIS is appropriate for the level of analysis.

## Letter 803, Comment 170

3.4.3.3.2 Page 3-245: Relying on safety factors determined through analyses to make the confident statement that "there would be no impacts associated with geological hazards" is not a correct usage of safety factors. Analyses show that the facility would be stable under static loading but do not show that there is not any chance of a catastrophic earthquake causing failure. Please outline an impact stating "There would be a low potential for failure of embankments due to earthquake events. If failure were to occur, the impact would be significant." If there is a potential for an impact to occur, even if low, the DEIS must disclose it and frame mitigation to address it. The analyses did not state that there would not be an impact; the analyses support conclusions that the potential is low.
**Disposition**: Other (SEE RESPONSE)

## Response

The analysis of failure, including the safety factors used in that analysis, is based on accepted engineering practices and incorporates the seismic risks for the project area. Static slope stability analyses were performed and showed acceptable factors of safety. In addition, a dynamic stability analysis was performed using the Maximum Credible Earthquake (MCE), which has a magnitude of 7.2 and a return period of 1,100 years. The dynamic analysis showed a permanent displacement of less than 12-inches. Less than 12-inches of displacement has been considered acceptable for lined facilities (Bray, 2007). Based on that evaluation, as well as extensive experience with similar facilities in the Battle Mountain District, the BLM has determined that the risk of a potential failure is low and that no specific mitigation for such a low probability event is required. Under BLM regulations, the Operator remains responsible for taking any measures to remediate the environmental impacts of unexpected events.

## Letter 803, Comment 171

3.4.3.7.1 Page 3-248: The Slower, Longer Alternative could create impacts to mineral resources at a level less than the Proposed Action. Under a longer mining timeframe, there are more opportunities to better define the other mineral resources in the Project Area (i.e., Zinc) and to make shifts in operations to create less impacts to these resources.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The timeframe over which this alternative would occur does not affect the extent of the impact; therefore, the impact from this alternative remains similar to the impact from the Proposed Action. No change has been made in the FEIS in response to this comment. A change in the alternative that is described in the comment would require an amendment to the Plan of Operations, which is not included in the description of the Slower, Longer Project Alternative in the FEIS.

## Letter 803, Comment 172

3.6 Page 3-254: Although analyses of air quality describe that the Project will not exceed the NAAQS (or NSAAQS), it is never recognized that the Project will, in fact, degrade the air quality of Eureka County regardless of a standard. This is in direct conflict with our Master Plan policy which is to prevent "deterioration of the superior air quality found in Eureka County." Please make this clear and describe what further can be done to protect the air quality of Eureka County through realistic and committed mitigation measures (and adequate monitoring to measure for degradation). Also it is never mentioned that the Project will limit the opportunities for future economic development and other industries due to raising of the ambient air "baseline" in Eureka County. Revise text to make this clear for our current and future citizens.
**Disposition**: Comment acknowledged; does not provide new information

## Response

The FEIS recognizes that any anthropogenic activity, including the future economic and industrial development that the commenter mentions, would have some effect on air quality. In quoting Eureka County's Master Plan, the commenter has omitted the word "significant". A reading of the entire stated objective, "Prevent significant deterioration of the superior air quality found in Eureka County", shows that the Master Plan recognizes the possibility of air quality effects and that determining attainment of the goal is not quantified. The FEIS demonstrates that the Project will meet all applicable health-based standards and discloses the potential impacts to air quality. Inconsistencies with Eureka County Master Plan have been addressed in an appendix to the EIS.

## Letter 803, Comment 173

Table 3.6-1 Page 3-255: The table is incorrect. The federal standard for 8-hour ozone is 0.075 ppm, not 0.75 ppm as stated
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

The table has been modified to reflect the correction.

## Letter 803, Comment 174

3.6.2.1 Page 3-258: More than enough time has been available to collect local, onsite and area baseline air quality conditions in the vicinity of the project area. That "no air quality data have been collected at the project" calls into question the BLM's process and the conclusions in the DEIS regarding air quality where local data is needed for a project lasting nearly 50 years. It is especially of concern when local data could inform the federal decision making process to protect the health and safety of local affected communities. We question whether the Mercury-Desert Rock Station, nearly 400 miles from Mt Hope, at low altitude, in a warm desert, has comparable or usable data for the air dispersion modeling, especially for the winter months. The only justification provided is that the Nevada BAPC considers it to be representative of the area. Downwind rural communities of Diamond Valley and Eureka deserve better from the NDEP and the BLM. A partial remedy to this shortcoming is for BLM to work with NDEP to require installation of local monitoring stations now and collect local and on-site baseline data for the next 2+ years until the mine would be operable.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The air dispersion model has been revised, and the Final EIS will disclose the results of the updated model. This updated model uses meteorological data collected at Mount Hope.

## Letter 803, Comment 175

3.6.3.2.2 Page 3-265: The receptors in the Jarbidge Wilderness Area and Great Basin National Park are more than 50 kilometers from the proposed facility. AERMOD is not recommended by EPA for distances greater than 50 kilometers. The CALPUFF model is currently recommended by EPA for these more distant receptors. Please revise the EIS analysis based on CALPUFF modeling.
**Disposition**: Comment acknowledged; does not provide new information

## Response

In Nevada, AERMOD is accepted for use in mining EIS analyses including impacts to Class I airsheds at long distances, because it is a conservative approach. PSD sources are required to perform air quality analysis of Class I areas within a distance of 100 km of the project. Jarbidge Wilderness Area and Great Basin National Park (GBNP) (note that GBNP is a Class II airshed) are both greater than 100 km from Mt Hope. The receptors placed along the Jarbridge Wilderness Area and the GBNP were only modeled for information purposes. Further, the Q/D screening method from the 2008 Federal Land Managers' Air Quality Related Values Workgroup, shows that the Mt. Hope project is considered insignificant for both the Jarbridge Wilderness Area and the GBNP for the worst-case modeling scenario.

## Letter 803, Comment 176

3.6.3.3 Page 3-275: Analysis and subsequently text and tables do not include pit scour wind erosion as a source of PM10 or PM2.5.
**Disposition**: Comment acknowledged; does not provide new information

## Response
The revised AERMOD includes fugitive emissions from pit operations and is included in Section 3.6 of the FEIS. The model used sufficiently conservative approaches to modeling fugitive dust, including wind erosion inside the pit, to account for pit scour.

## Letter 803, Comment 177
3.6.3.3 Page 3-275: Please add the acronym PC to the list of acronyms.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response
The acronym "PC" has been added to the list and defined as "Primary Crusher".

## Letter 803, Comment 178
3.6.3.3.1 Page 3-276: The discussion in this paragraph concerning the potential impact of wind-blown fugitive dust that could result from lowering the water table is appropriate. However, it should be added that while acknowledged as a possibility, the DEIS did no quantitative estimate of the impact of this process. Therefore the model predictions and estimates of fugitive dust impacts discussed in the DEIS do not include the effect of vegetation loss from water table lowering. It is necessary for the DEIS to provide analysis of quantitative estimates of fugitive dust impacts related to lowering of the water table. For a recent analogue example of this estimation being provided, see the SNWA Pipeline DEIS from the BLM Ely District.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-020-Impacts to Phreatophytes

## Letter 803, Comment 179
3.6.3.3.1 Page 3-277: The conclusions regarding significance of impact are unsupported without the analysis completed that is necessary to quantify the impacts from fugitive dust from all sources, including the potential wellfield pumping impacts. This analysis is a necessary part of disclosing the full impacts of the Project.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-020-Impacts to Phreatophytes

## Letter 803, Comment 180
3.6.3.3.1 Page 3-277: The 1-hour average SO2 concentration is reported to be lower than the 3-hour average. We assume that this is likely due to the metric that is used to calculate the peak 1-hour SO2 impact (99% percentile value) versus the 3-hour impact, which is likely a peak value. However, further explanation is necessary in the DEIS to clarify this point.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-105-Modeled Air Quality Impacts

## Letter 803, Comment 181
Table 3.6-9 Page 3-277: The basis for the 1-hour NO2 model impacts presented in the table has been discussed in a memorandum to Pat Rogers of Eureka Moly from Ejaz Memon from Air Sciences on October 18, 2010. Since the values in that memorandum are identical to those in the DEIS, we will assume that the calculations discussed in the memorandum are the basis for the values shown in the DEIS. It is our opinion that these methods have significantly under-estimated potential 1-hour NO2 impacts.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-126- Air Model Calculations

## Letter 803, Comment 182
We believe that there is an error in the modeling that has resulted in showing that the facility can comply with the one hour NO2 standard. Air Sciences, in the memo from Ejaz Memon to Pat Rogers (October 18, 2010) that was attached to the Eureka Moly letter of October 28 to Angelica Rose at BLM says: "Source Characterization: The PVMRM method works with POINT sources only; therefore it was essential to recharacterize the VOLUME sources used in the NEPA Analysis as POINT sources for this analysis."
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-126- Air Model Calculations

## Letter 803, Comment 183

The largest single source is the pit source which was correctly characterized as an OPENPIT type of source in the original modeling, but was changed to a POINT source in the 1-hour NO2 analysis. Air Sciences mistakenly thinks that PVMRM works only with POINT sources. This is not true. The problems with the PVMRM routine are with VOLUME sources only, not with AREA sources or OPENPIT sources. There was no reason to change the pit from an OPENPIT source to a POINT source – in fact it should not be a POINT source, it is obviously an open pit and is appropriately characterized as an OPENPIT source, not a smoke stack. If it is changed back to an OPENPIT source (for just that one source) the impacts jump from their reported peak of 143.8 micrograms per cubic meter (ug/m3) to 416.6 ug/m3. Since the ambient standard is 188 ug/m3, this obviously makes a huge difference in their conclusions. On the basis of the corrected Air Sciences' modeling analysis, the Eureka Moly project as currently proposed cannot meet the Federal one-hour NO2 standard.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-126- Air Model Calculations

## Letter 803, Comment 184

In a revised version of the Air Sciences Memorandum, dated April 4, 2011, Air Sciences has provided additional justification for their characterization of the pit source as a point source, rather than an OPENPIT source. However, the issues raised by Eureka County in were not corrected and still remain.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-126- Air Model Calculations

## Letter 803, Comment 185

The fundamental issue concerns how Air Sciences modeled the emission sources in the 1-hour NO2 analysis. The air quality model used in the analysis, an EPA model called AERMOD, allows the user to enter emissions into the model as a series of specific emissions sources of discrete types. The types at issue in this analysis are POINT sources, VOLUME sources and OPENPIT sources. Consistent with typical practices in modeling mining emission sources, in the NEPA Impact Analysis Mount Hope Project, June 2010, Air Sciences modeled the boilers, roasters and other "smoke stack" types of sources as POINT sources, but modeled all the mining sources, including the exhaust from the mobile equipment as either VOLUME or OPENPIT type sources. However, when the subsequent memorandum was issued for the 1-hour NO2 analysis, Air Sciences switched all emission sources to POINT sources, a switch that greatly reduces their impact. The reason for this switch was incorrectly stated by Air Sciences in the October version of the memorandum to be because they had chosen to use an option called PVMRM which was not previously used and that, "The PVMRM method works with POINT sources only."
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-126- Air Model Calculations

## Letter 803, Comment 186

This statement was incorrect as discussed above. The problem with PVMRM at the time was that VOLUME sources were incorrectly coded in the AERMOD model, but the problem was exclusive to VOLUME sources and not to any other type of source, including the OPENPIT source type. ENVIRON stated that the analysis should be re-done with the emissions for the Pit reset to the original OPENPIT source type.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-126- Air Model Calculations

## Letter 803, Comment 187

Air Sciences did not do this. They have continued to model the pit emissions as a POINT source despite the fact that they had modeled NOx emissions from these same sources in the NEPA analysis as an OPENPIT source. The added justification for making the switch to POINT sources relies on two factors: 1) a buoyancy issue that states that most of the NOx is from diesel exhaust which would be hotter than ambient air and hence subject to some buoyant plume rise, and 2) an argument that plume meandering due to terrain features is not implemented in the AREA source algorithm which they contend is also true for OPENPIT type sources. Neither of these points supports Air Sciences' POINT source approach.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-126- Air Model Calculations

## Letter 803, Comment 188

Buoyancy: The suggestion that a mobile piece of equipment would experience the same plume rise as a fixed smoke stack is incorrect. All the plume rise algorithms are based on a fixed smoke stack. Mobile sources are fundamentally different in that they move and the plume rise algorithms are completely inappropriate. A fixed emission source will have very different plume rise characteristics in windy conditions than in calm or low wind speed conditions. Since the mobile equipment is in motion, it does not experience calm and low wind speed conditions and the calculation of plume rise is incorrect. It is impossible to treat the plume rise from a mobile source with a fixed source plume rise equation. For this reason, as Air Sciences acknowledges, mobile sources are typically modeled as VOLUME sources, not as POINT sources.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-126- Air Model Calculations

## Letter 803, Comment 189

Plume Meander: This point is not valid. The sources of emission within the pit are in motion throughout the pit and located in a different spot from minute to minute. To suggest that treating them as a fixed smoke stack at a particular location is more representative than an OPENPIT type of source which was designed specifically to address the distributed nature of the emission sources is very misleading. It is true that if the emissions were all at a fixed single location in the pit, the plume meander issue might be an important consideration, but given that the sources are in motion throughout the pit, the plume meander issue is moot and in any event would be a miniscule issue compared the incorrect location error induced by assuming all the emission sources are at the same spot. If what Air Sciences suggests is true, there would simply be no reason for having AREA or OPENPIT type sources in the model. The fact that they exist and were specifically created to treat emission sources which do not remain fixed in one location, but rather move from point to point over an area is clear evidence of the intent by EPA to treat emissions from an open pit using the OPENPIT source type, not the POINT source type.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-126- Air Model Calculations

## Letter 803, Comment 190

Fortunately, there is no reason to debate this issue. In the interim, EPA has issued a new version of the AERMOD model that corrects the VOLUME source problem with PVMRM, so there is no longer any reason to use the POINT source formulation. As Air Sciences correctly states, the EPA recommends using VOLUME sources for mobile equipment. ENVIRON still believes the OPENPIT characterization is more accurate for the pit sources than a VOLUME source approach, but certainly the haul roads and other mobile equipment can be readily modeled as VOLUME sources.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-126- Air Model Calculations

## Letter 803, Comment 191

To illustrate how significant this improper treatment of the emission sources in the model is, ENVIRON has revised the model run which produced the peak impact by changing the emission source types for all of the sources that were switched to POINT sources and changed them back to VOLUME sources. The result is that impacts increase from 143.8 micrograms per cubic meter (µg/m3) to 318 µg/m3. The results go from being in compliance with the 1-hour standard to well in excess of the 1-hour standard without even including the background concentration. Mitigation must be required by BLM to bring these impacts below the level of non-compliance. Please ensure that this happens.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-126- Air Model Calculations

## Letter 803, Comment 192

Finally, we understand from speaking to Craig Nicholls at the DEIS public hearings that the modeling will be redone to address these issues highlighted above. We were also promised that BLM would involve us and our air quality expert in the implementation of the model and discussions on the assumptions that will be used. We have yet to see any effort by BLM to follow through with this commitment. What is most concerning to us is that EML has reported to us that their air modeler is already working on the remodeling and is almost done. We request in the strongest terms that BLM keep us involved in the development of the model rather than relegating us to only review and comment.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-053-Air Quality Modeling

## Letter 803, Comment 193

3.6.3.3.4 Page 3-278: Why were there not any sensitive receptors placed at any Diamond Valley residences, farms, or ranches? It is arbitrary to place a sensitive receptor at Alpha Ranch almost 15 miles to the north of the mine when dozens (nearly all) of the residences in Diamond Valley north of 6th street are as close, or closer, to the mine than Alpha Ranch. This includes the Romano Ranch, the Sadler-Brown Ranch, and the Bailey Ranch which are much closer than Alpha Ranch. Also, the Hay Ranch (Risi Ranch) in south Kobeh Valley (near Devil's Gate) is as close to Mt. Hope as the Alpha Ranch. What is worrisome to many Diamond Valley residents is that the prevailing winds blow towards Diamond Valley and many of the modeled highest pollutant concentrations are on the fenceline closest to Diamond Valley (Figure 3.6.4). Please describe why the sensitive receptor analysis is justified and why the bulk of properties nearest to the mine were excluded from analysis and disclosure. If the analysis was carried out correctly, the text that describes the highest concentrations to typically fall on Roberts Creek Ranch may be found incorrect.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-119-Diamond Valley Sensitive Receptors

## Letter 803, Comment 194

3.6.3.3.2 Page 2-278: The conclusion regarding the significance of exhaust pollutant emissions is incorrect. When properly performed, the air quality modeling will demonstrate that 1-hour NO2 concentrations will be exceeded by the proposed mining operation. As a result these impacts are significant and additional mitigation is necessary.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-053-Air Quality Modeling

## Letter 803, Comment 195

3.6.3.3.4 Page 3-284: Please double check Table 3.6-11 for errors. One apparent error that we found was the 1-hour NO2 reported at the Roberts Creek Ranch. The Table reports 46,245 but is likely 46.245.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response
This value has been updated.

## Letter 803, Comment 196

3.7.3.2.1 Page 3-302 and Page 3 -303 (and related simulations on Pages 3-305 and 3-306): The colors described in the text are unclear in the photos because the photo and simulations are of low quality. Please improve the simulations to better and more clearly depict contrasts, colors, and lines.
**Disposition**: Comment acknowledged; does not provide new information

## Response
CC-058- Visual Simulations

## Letter 803, Comment 197

3.7.3.2.2, Figure 3.7.3b Page 3-307: KOP #2 depicts by far the most dramatic changes, including light pollution, but the analysis and description of light pollution there and east of KOP #2 is not adequate. Please better analyze and describe so local residents, especially in Diamond Valley, can determine what the visual impact to them will truly be.
**Disposition**: Comment acknowledged; does not provide new information

## Response
CC-058- Visual Simulations

## Letter 803, Comment 198

3.7.3.2.2, Figure 3.7.3d Page 3-308: The northeast portion of Mt. Hope and around SR 278 between Garden Pass and Diamond Valley are considered Class III areas. However, in Figure 3.7.3d, the "reclaimed" Non-PAG WRDF does not meet Class III objective "to partially retain the existing character of the landscape" as stated on page 3-298. Please require additional mitigation to ensure that there is realistic retention of "the existing character of the landscape."
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The Non-PAG WRDF is on the western portion of Mount Hope and is, therefore, not within the VRM Class III area. Refer to Figure 2.1.13 for the location of this feature. A new figure has been added to Section 3.7 to illustrate the visual classes located within and adjacent to the Project Area. This figure also identifies the location of the Non-PAG WRDF.

## Letter 803, Comment 199

3.7.3.2 Page 3-319: We are still concerned about the view of the Project, wellfield, and TSFs near Roberts Creek. We have continued to ask for better visual analysis from this area since mid-2009 and have seen no real effort by BLM to address our concerns (see previous letters regarding baseline analysis and comments on ADEIS that were not fully addressed especially in regards to this area). Many families use the historic and customary camping and fishing recreation area at Roberts Creek. The reason this area on Roberts Creek is used is because of its quiet setting and beautiful views of Kobeh Valley. The DEIS lacks information on the view of the mine, facilities, wellfield, and TSFs from this area, and no KOP simulation was done for this area. The current KOP in Kobeh Valley is over 10 miles away from the mine facilities and does little to inform the public of the true scope and extent of this project and the visual impacts that will occur in Kobeh Valley. Please simulate and analyze the view from the Roberts Creek area so users of this locally important area can have a full understanding of the visual impact of the mine from this treasured site.
**Disposition**: Other (SEE RESPONSE)

## Response

Figure 3.7.1 of the EIS identifies those areas where the top of Mount Hope would be visible. Mount Hope is not visible from essentially all locations along Roberts Creek upstream of the ranch. In addition, the slopes on the east side of Roberts Creek, both upstream and down stream of the ranch shield the view of the tailings facilities portion of the Project from locations along Roberts Creek. The existing KOPs in the EIS provide an adequate range of representative views of the Proposed Action and alternatives. No changes have been made to the FEIS text to address this comment.

## Letter 803, Comment 200

3.8.2.1 Page 3-329: BLM did not adequately address previous comments on both ADEIS (see 1854). In fact, BLM's response had nothing to do with the comment made. The analysis still has not looked at vegetation type, structure, and cover to assess "soil erodibility hazard potential". This needs to be done or all erosion potentials and predictions are extremely unreliable and indefensible. Soil erodibility (wind and water) cannot be adequately analyzed strictly through K values and WEG ratings. Each of these components is only a partial input into erodibility analyses. None of these study methods takes into account one of the most important and correlative factors--vegetation. Please update analysis using a correct methodology such as the Wind Erosion Prediction system (WEPS) and/or the Rangeland Hydrology and Erosion Model (RHEM) in order to adequately analyze erosion potentials.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The BLM has used the best available direct data for soils characteristics. References to the NRCS web soil survey has been added to the last three paragraphs under the study methods for soils in Section 3.8.2.1 of the EIS.

## Letter 803, Comment 201

3.8.3.1 Page 3-339: Again, BLM failed to address previous ADEIS comments. There is still not a significance criterion to measure impacts related to water drawdown. BLM's perfunctory response to previous comments was that a sentence would be added to read "Within the area of the potential water table draw down in Kobeh Valley, soil erodibility will be assessed by looking at potential changes to the vegetation community." This response does not even address what the comments pointed to. BLM's own analysis of soil erodibility in the DEIS is based on K values and WEG ratings which fails to account for vegetative cover (which we believe is indefensible). However, if BLM is going to primarily rely on K values and WEG ratings for soil erodibility analysis then BLM must not overlook the fact that much of the erodibility rating is based on the water content of the soil. The water surface is very shallow at many of these areas which in turn keeps the soil wet and especially decreases wind erosion. If the water is drawn down, the surface soils will not stay wetted and there will be large amounts of wind erosion. Regardless of vegetation cover, the entire erodibility rating of these soils could change in the future strictly due to their water content. Further, these soils are very fine grained sediments. It is largely a function of being wet that keeps these soils from eroding from wind. This points out again how a 10-foot drawdown interval serves to downplay and minimize potential impacts. Please add a significance criterion of "Accelerated erosion in areas where vegetation or land productivity has declined due to Project related ground water pumping" and then carry out the necessary analysis to determine the impacts and frame valid mitigation.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-080-Fugutive Dust Emissions Mitigation

## Letter 803, Comment 202

3.8.3.3 Page 3-344: We appreciate that the text now describes the potential impacts that could result from vegetation cover decrease due to Project pumping. However, there is still a failure to tie the decrease in soil moisture due to Project pumping, regardless of

vegetation decrease, to potential erosion. Please include additional text to read, "Much of the erodibility rating of soils is based on the water content of the soil. The water table surface is very shallow at many of these areas which in turn keeps soil moisture at the surface high and especially decreases wind erosion. If the water table is drawn down, the surface soils will not stay wetted and there could be increased wind erosion. Further, these soils are very fine grained sediments and it is largely a function of being wet that keeps these soils from eroding from wind."
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-020-Impacts to Phreatophytes

## Letter 803, Comment 203

3.8.3.3 Page 3-344: BLM's continued assertion that because of "committed operation performance standards, BMPs...this impact is not considered significant" is faulty logic and incorrect. EML has not committed or proposed any measure or BMP to address impacts related to phreatophyte loss, soil erosion, and increased fugitive dust in the drawdown area. Please outline a significance criterion, impact analysis, and mitigation for these potential impacts. These impacts would be significant because there is currently nothing committed in place that will (or can) reduce the impacts connected to phreatophyte loss, soil erosion, and increased fugitive dust in the drawdown area.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-020-Impacts to Phreatophytes

## Letter 803, Comment 204

3.8.3.3.1 Page 3-346: In the Residual Adverse Impacts, please discuss the potential permanent loss of topsoil that would occur due to increased wind and water erosion of soils under the project pumping drawdown.
**Disposition**: Comment acknowledged; does not provide new information

## Response
The Project is not expected to result in a loss of topsoil in the areas of phreatophytes. Section 3.8.3.3 has been revised in the FEIS to discuss the change in soil condition from hydric to xeric. No additional change has been made in the FEIS in response to this comment.

## Letter 803, Comment 205

3.8.3.7 Page 3-350: Again, the tone of the language used for the Slower, Longer Alternative works to bias the reader that this Alternative, in all cases, creates more impacts than the Proposed Action. However, under the Slower, Longer Alternative, impacts to vegetation and soils under the maximum drawdown would be less because although more area is within the 10-ft drawdown contour, there is less drawdown below root extinction depths. Please include this in the description when outlining impact analysis. Mitigation for this potential impact could create impacts to mineral resources at a level less than the Proposed Action. We request revising to read, "Although impacts from the Slower, Longer Project Alternative would occur over a period twice as long in duration compared to the Proposed Action, the day-to-day impacts would be less. Further, impacts to vegetation and soils under the maximum drawdown would potentially be less because although more area is within the 10-ft drawdown contour, less drawdown may occur below root extinction depths."
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-020-Impacts to Phreatophytes

## Letter 803, Comment 206

3.9.2.2.1 Page 3-359: Although it is not technically incorrect to refer to salt desert shrublands as "salt desert scrub" the current preference of the rangeland science community is a preference of "shrubland" rather than "scrub". See paper from West, et al (2008) that describes the outdated usage of "scrub" as an intentional label often carrying the connotation of "less ecologically important." Please do a global search of DEIS and change all references of "scrub" to "shrub" or "shrubland."
**Disposition**: Comment acknowledged; does not provide new information

## Response
CC-099-Salt Desert Scrublands

## Letter 803, Comment 207

3.9.2.2.1 Page 3-361: The NRCS ecological site description (ESD) is referenced here for big sagebrush/low sagebrush vegetation type, but not for any of the other vegetation types. Please reference the ESD for each vegetation type as these ESDs have much bearing on the current state and potential other states of vegetation.

**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The text in Section 3.9.2 of the EIS has been modified to include references to the ecological sites that occur within each vegetation community within the Project Area. Descriptions of the vegetation species as well as the percent vegetation composition for each ecological site has been added to the EIS.

## Letter 803, Comment 208

3.9.2.2.1 Page 3-362: BLM's response on our previous ADEIS comment that "Figure 3.9.2 uses the best available data from the USGS on the location of the phreatophytes" is incorrect unless BLM considers the most recent data and reports by USGS to not be "the best available." The map of the phreatophytic vegetation on all figures, specifically 3.2.20, 3.8.1, 3.8.2, and 3.9.2 are at odds with updated USGS mapping of phreatophytes as we noted to BLM on both ADEIS and in our review of the hydrology baseline reports. The published USGS study of the Diamond Valley flow system shows a much different extent of phreatophytes than is depicted in the figure (available at http://pubs.usgs.gov/of/2011/1089/). Apparently, the field surveys referenced in the DEIS to define vegetation types fell short in defining phreatophytes. Of particular interest, one of the USGS phreatophyte ET instrumentation stations is in an area that the figures show as not having phreatophytes. Please update figures, text, and analysis with correct and updated information in order to disclose the true, full range of phreatophyte vegetation areas that could be impacted due to Project pumping.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-020-Impacts to Phreatophytes

## Letter 803, Comment 209

3.9.2.2.4 Page 3-364: The section on climate change in relation to vegetation change needs citations to back up the statements made regarding effects and impacts of climate change. Also, vegetation composition is not only integral to "native cultures", but also to rangeland health and other multiple-uses. This section focuses on impacts to Native American concerns. Please revise first sentence of 3.9.2.2.4 and add "rangeland health and other multiple uses" to reflect this. Also, please change second sentence to read "...availability of plants for traditional and multiple use purposes."
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-042-Climate Change

## Letter 803, Comment 210

3.9.3.1 Page 3-365: There needs to be a significance criteria outlined for the BLM defined "indirect" impacts to vegetation resources that are impacted due to project pumping (see our previous comments related to the same issue).We request the second to last current criterion be changed to read, "Failure of reclamation or mitigation efforts...that protects directly disturbed or indirectly affected soil surfaces..." and the last current criterion to read, "Establish plant communities on the reclaimed areas or indirectly affected areas..."
**Disposition**: Comment acknowledged; does not provide new information

## Response

The impact analysis includes both direct and indirect impacts. The language in the significance criteria captures both types of impacts.

## Letter 803, Comment 211

3.9.3.3.1 Page 3-365: There is still a general downplay of impacts to phreatophytes, riparian vegetation, and wet meadows. This is a great example of how the impacts to private property are not disclosed or discussed. Take the meadows at Roberts Creek Ranch as an example. Where are the potential impacts to this agricultural base addressed? The analysis needs to be revised to account for the impacts to this agricultural land and the potential impacts to sub-irrigated meadows that do not require a water right because they are naturally irrigated through shallow and wet, saturated soils.
**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-132-Spring Mitigation on Private Land

## Letter 803, Comment 212

3.9.3.3.1 Page 3-367: The DEIS still fails to acknowledge potential loss in riparian vegetation due to Project pumping. We are pleased that the DEIS acknowledges the potential for impact to phreatophytes, but are dismayed that the document falls short in acknowledging impacts to riparian vegetation and wet meadows due to water drawdown (i.e., spring complexes, seeps, streams). Therefore, the concluding statement by BLM that "Impacts to other vegetation communities as a result of drawdown are not expected" cannot be correct given that there are riparian areas and wet meadows that fall directly within the 10-ft drawdown that are predicted to be impacted. Please describe the potential impacts to riparian vegetation.

**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-020-Impacts to Phreatophytes

## Letter 803, Comment 213

3.9.3.3.1 Page 3-367: Providing an "appropriate seed mix" will not address the impact. There are dozens of examples of efforts in Nevada where simple seeding does not and cannot replace vegetation in these areas. In addition to the minimal discussion of seed mixes, there needs to be analysis and discussion on what soil amendments and other reclamation measures would be successful in vegetating phreatophyte and salt-desert shrub areas. At the very least, there should be discussion that other measures may be necessary to re-vegetate these areas than simply seeding. Further, it is against common sense and reason to suggest that phreatophytes should be replaced with phreatophytes. This goes against the understanding of the hydrology and perennial yield of these areas and the fact that under the tenet of Nevada water law, the phreatophytes must be impacted. Remove language about replacing phreatophytes with phreatophytes.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-020-Impacts to Phreatophytes

## Letter 803, Comment 214

3.9.3.3.1 Page 3-367: Project pumping can also cause impacts to riparian vegetation and wet meadows. Change to read "Phreatophyte vegetation, riparian vegetation, and wet meadows would potentially experience water stress…Lowering of the water table in the area of phreatophytes or drawdown of water that sustains riparian vegetation or wet meadows would potentially cause a decline in those communities."
**Disposition**: Other (SEE RESPONSE)

## Response
Potential impacts to riparian vegetation (and seeps and spring) and mitigation are discussed on under Impacts 3.11.3.3-2 and 3.11.3.3-3, and impacts to phreatophytes are discussed in Section 3.9.3 in the vegetation section.

## Letter 803, Comment 215

3.9.3.3.2 Page 3-369: Just because a species wasn't located in the field by consultants doesn't mean that the plants are not there. It is incorrect for BLM to describe that an impact "could occur" and then require no mitigation because the plants weren't observed. Mitigation should be defined according to what impacts could occur not based on "no observations". For clarification, even though not observed, the plants could occur and be impacted. Surveys did not prove that these species were not located in the Project Area, only that they were not found or observed. Mitigation must be changed to describe what would be done if it is determined that Project activities impact special status plant species. Further, there must be monitoring employed to determine if these species are found in the area and if they are impacted. BLM and the public will never know what the impacts are if there is not monitoring to discern the impacts.
**Disposition**: Other (SEE RESPONSE)

## Response
CC-070- Special Status Species Mitigation

## Letter 803, Comment 216

3.9.3.3.2 Page 3-369: Again, if an impact to least phacelia could occur, there must be descriptive and specific mitigation to address the impact in addition to monitoring employed to determine if least phacelia are found in the area and if they are impacted. BLM and the public will never know what the impacts are if there is not monitoring to discern the impacts.
**Disposition**: Other (SEE RESPONSE)

## Response
CC-070- Special Status Species Mitigation

## Letter 803, Comment 217

3.9.3.3.2 Page 3-369: We appreciate that yearly monitoring will be required for impacts to the Monte Neva Indian paintbrush and request that this monitoring also be required on all other special status plants described in this section. However, mitigation must be specific and descriptive in order to weigh the true magnitude of impacts, including residual effects. It is not defensible, and is at odds with the intent of NEPA, to rely on EML and BLM to "develop" proper mitigation sometime in the future to address the impact. This mitigation must be disclosed now for all potential impacts to the Monte Neva Indian paintbrush and other special status plants.
**Disposition**: Other (SEE RESPONSE)

## Response
CC-070- Special Status Species Mitigation

## Letter 803, Comment 218

3.9.3.3.3 Page 3-370: Again, just because species were not observed does not mean that they are not there. Areas predicted to be impacted by water drawdown must be included as well in residual impacts. Many of these areas (i.e., riparian corridors) may be prime habitat for least phacelia and the plant may actually be currently present (just not observed during field surveys). The text continues to speak of "unoccupied" habitat but there is no way that BLM has been able to narrow down all areas of potential habitat that do or do not have these species. Change to read, "There is a potential residual indirect effect to special status plant species habitat whether currently occupied by these species or not."
**Disposition**: Other (SEE RESPONSE)

## Response
Because the best available science indicates the three special status plant species do not occur in the project area, it is not necessary to suggest that residual indirect effects could affect these species.

## Letter 803, Comment 219

3.9.3.7.1 Page 3-376: Indirect impacts to phreatophytes and some special status plant species under the maximum drawdown would be less under the Slower, Longer Alternative because although more area is within the 10-ft drawdown contour, there is less drawdown below root extinction depths. Please clarify this point in all of the impacts analyses under the Slower, Longer Alternative. BLM's response to our previous ADEIS comment on the same issue (1892) is indicative of the reason why an arbitrary 10-ft drawdown contour is inadequate for the proper disclosure and reasoning about whether other alternatives would reduce impacts of the Project. BLM responded, "Utilizing the criteria other than the ten-foot drawdown for this alternative would create an inconsistency in analysis between the alternatives." This response shows that the hesitation by BLM for anything other than the strict line on the map of 10-foot of drawdown is primarily because of the multitude of cascading changes that would have to occur throughout the analyses and document. This is also another example of BLM's failure to ever describe the Slower, Longer Alternative as being anything with less impact than the Proposed Action (the BLM's preference).
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-020-Impacts to Phreatophytes

## Letter 803, Comment 220

3.10.1.3 Page 3-379: Please revise final sentence of 3.10.1.3 to read "In Eureka County, weed control is primarily discharged through Eureka County weed control under the County Department of Natural Resources and through the Diamond Valley Weed Control District." This clarifies that there is overall weed control countywide on top of the efforts of the Diamond Valley Weed Control District. In fact, the County treats as many weeds outside the boundaries of the Diamond Valley Weed District as inside.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
The text in section 3.10.1.3 has been revised to read, "In Eureka County, weed control is primarily discharged through Eureka County weed control under the County Department of Natural Resources and through the Diamond Valley Weed Control District."

## Letter 803, Comment 221

3.10.3.3 Page 3-380: Please revise to state that "hoary cress has been mapped in the SR 278 right-of-way that is encompassed by the Project Area boundary."
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
The first paragraph in the FEIS in Section 3.10.3.3 has been revised to read, "Although no noxious weeds were observed in the Project Area during the initial 2007 survey, weedy annual species including cheatgrass and halogeton were identified within the Project Area, and Russian thistle was located near the Project Area. Although Scotch thistle (Onopordum acanthium), hoary cress (Cardaria draba), and salt cedar (Tamarix ramosissima) have been mapped and treated by Eureka County in the vicinity, these species were not observed during initial surveys of the Project Area. Subsequently, hoary cress has been observed within the Project Area along roadsides within the Project boundary."

## Letter 803, Comment 222

3.10.3.3 Page 3-380: Please revise final sentence on page 3-380 under 3.10.3.3 to "...would be coordinated with the BLM and Eureka County." It is necessary to coordinate weed control efforts with the County as required under state weed control regulatory mandates.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The sentence in the FEIS in Section 3.10.3.3 has been revised to read, "Implementation of this plan would be coordinated with the BLM, Eureka County Natural Resource Department, and Diamond Valley Weed Control District."

## Letter 803, Comment 223

3.10.3.3 Page 3-381: The mitigation measure framed will do nothing to address areas where weeds or invasive species have already been introduced. There needs to be mitigation of treating the weed/invasive species first and then moving forward with vegetation seedings to stabilize the area and keep out or minimize re-establishment of undesirable species. Second, simply providing an "appropriate seed mix" will not address the impact. There are dozens of examples of efforts in Nevada where simple seeding does not and cannot replace vegetation in these areas. In addition to simple discussion of seed mixes, there needs to be analysis and discussion on what soil amendments and other reclamation measures would be successful in vegetating phreatophyte and salt-desert shrub areas. At the very least, there should be discussion that these other measures may be necessary to re-vegetate these areas than simply seeding. Further, it is impractical and inappropriate to suggest that phreatophytes should be replaced with phreatophytes. This goes against the understanding of the hydrology and perennial yield of these areas. Under the tenet of Nevada water law, the phreatophytes must be impacted. Remove language about replacing phreatophytes with phreatophytes.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

Impact 3.10.3.3-2 has been revised in the FEIS to read as follows, "Phreatophyte vegetation, riparian corridors, and wet meadows would potentially experience changes in species composition and density due to the water table drawdown associated with ground water pumping and subsequent recovery of the water table. Noxious weeds as well as invasive and nonnative species associated with existing surface disturbance or those transported into the phreatopytes, riparian corridors, and wet meadows could potentially invade areas that experience changes in species composition and density.

Significance of the Impact: The impact is not considered potentially significant. Based on the results of the analysis, no mitigation for this impact is proposed."

This same edit has been made for Impacts 3.10.3.5-2, 3.10.3.6-2, and 3.10.3.7-2 in the FEIS.

## Letter 803, Comment 224

3.10.3.3 Page 3-381: Revise last sentence to read, "...through appropriately re-vegetating areas that no longer support phreatophytes, riparian vegetation, or wet meadows." Mitigation highlighted in this section speaks to more than just phreatophyte areas.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The sentence has been revised in the FEIS to read, "... through appropriately reseeding to establish vegetation in areas that no longer support phreatophytes, riparian vegetation, or wet meadows."

## Letter 803, Comment 225

3.10.3.3.1 Page 3-381: Please revise so residual impacts also speak to the residual indirect impacts as well that may occur due to Project groundwater pumping. The water resources monitoring plan must have a component of weed monitoring to account for impacts that may occur in these areas long after the mine has ceased to operate and reclamation is complete at the mine site.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

The Plan of Operations, Appendix 13 - Noxious Weed Monitoring Plan has been revised to include areas impacted by ground water pumping. The text in the FEIS has been revised to read as follows "Implementation of reclamation and the noxious weed monitoring and control plan would reduce or eliminate the chance of noxious weed establishment and infestation (see the Plan, Appendix 13)."

## Letter 803, Comment 226

3.10.3.7 Page 3-384: Please revise to describe that indirect impacts to phreatophytes under the maximum drawdown would be less under the Slower, Longer Alternative because although more area is within the 10-ft drawdown contour, there is less drawdown below root extinction depths.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-020-Impacts to Phreatophytes

## Letter 803, Comment 227

3.11.3.3 Page 3-387: Include language about the recreational importance of riparian and wetland communities. The bulk of the dispersed recreation that takes place on public land occurs in locations associated with water and riparian areas.

**Disposition**: Already addressed in planning documents

## Response
These areas are discussed in the in Section 3.15.2.2.1.

## Letter 803, Comment 228

3.11.3.3 Page 3-388: Mitigation measure 3.11.3.3-2 describes reducing impacts to phreatophytes but as we pointed out previously, impacts to phreatophytes must occur when pumping groundwater for another use, in this case mining. The large majority of the groundwater available under the perennial yield concept is only water that can be "salvaged" from ET of phreatophytes. Please revise to recognize this fact and to openly discuss the impacts to phreatophytes that must occur.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-020-Impacts to Phreatophytes

## Letter 803, Comment 229

3.11.3.3 Page 3-389: Since the mitigation highlighted here is actually the mitigation highlighted earlier in 3.2.3.3 (water quantity) please refer to our specific comments regarding 3.2.3.3 for requested changes here.
**Disposition**: Comment acknowledged; does not provide new information

## Response
Comment noted.

## Letter 803, Comment 230

3.11.3.3 Page 3-389: Please refer to our previous comments on the DEIS where we discuss this same issue and incorporate requested changes. At the very least, there should be discussion that other measures may be necessary to re-vegetate these areas than simply seeding and removal of language about replacing phreatophytes with phreatophytes.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-020-Impactst to Phreatophytes

## Letter 803, Comment 231

3.11.3.3 Page 3-389: There needs to be analysis on and mitigation proposed for private property wet meadow impacts. Take the meadows at Roberts Creek Ranch as an example. Where are the potential impacts to this agricultural base addressed? The analysis needs to account for the impacts to this agricultural land and the potential impacts to sub-irrigated meadows that do not require a water right because they are naturally irrigated through shallow and wet, saturated soils.
**Disposition**: Comment acknowledged; does not provide new information

## Response
CC-132-Spring Mitigation on Private Land

## Letter 803, Comment 232

3.11.3.3.1 Page 3-389: Residual Adverse Impacts needs to speak of the difficulty of providing man maintained mitigation structures, facilities, pipelines, etc. well into the future, perhaps for perpetuity and address how this could be overcome through establishment of a long-term mitigation fund.
**Disposition**: Comment acknowledged; does not provide new information

## Response
CC-094-Long-term Water Mitigation

## Letter 803, Comment 233

3.11.3.7 Page 3-393: Indirect impacts to phreatophytes and some special status plant species under the maximum drawdown would be less under the Slower, Longer Alternative because although more area is within the 10-ft drawdown contour, there is less drawdown below root extinction depths.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-020-Impacts to Phreatophytes

## Letter 803, Comment 234

3.12.2.1 Page 3-395: Please revise to read, "Allotments are managed to maintain or make progress towards achieving rangeland health and grazing standards and guidelines and maintain and augment rangeland…"
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The following sentence has been added in the FEIS under the BLM Standards and Guidelines for Livestock Grazing section, "BLM allotments are managed to achieve Northeast Great Basin Resource Advisory Council standards and guidelines." Additionally, the sentence stating "Allotments are managed to maintain and augment rangeland improvements . . . and fencing" has been deleted in the FEIS.

## Letter 803, Comment 235

3.12.2.2 Page 3-395: It appears that the Livestock Grazing and Production section does not examine impacts (reduced forage) on private lands that support grazing. Please disclose the number of acres of available forage on private lands that are affected by the drawdown area. BLM should not exclude impacts to private lands especially those within the drawdown area.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

Where there is the potential for the loss of forage on private land (which would include riparian areas associated with flowing streams and springs, wetlands, as well as areas of greasewood, rabbitbrush, saltgrass, and meadow grass) mitigation is identified in Sections 3.2.3, 3.9.3, and 3.11.3. This mitigation in water, vegetation, and wetlands indirectly addresses the potential loss of forage on private land. An exception to this is where there are springs located on private land that are within the ten-foot drawdown, the BLM cannot require mitigation be implemented. Therefore, there is a potential loss of forage associated with the loss of those specific springs.

## Letter 803, Comment 236

3.12.2.2 Page 3-395: Not all of the allotments that fall within the 10-ft drawdown are described. There needs to be language clearly making the separation between direct and indirect impacts of the Project even if the same allotment may fall under both categories. Please revise to read, "The Project Area is located within six...and 3 Bars (Figure 3.12.1). Of these six allotments, all but the Ruby Hill Allotment have a portion of the maximum extent ten-foot ground water drawdown contour located within them. Although not located within the Project Area footprint, the Santa Fe/Ferguson Allotment also has a portion of the maximum extent ten-foot ground water drawdown contour located within it."
**Disposition**: Comment acknowledged; does not provide new information

## Response

The analysis of direct and indirect effects for these allotments is included in Section 3.12.3.3 of the EIS. No revisions have been made in the FEIS in response to this comment.

## Letter 803, Comment 237

3.12.2.2 Page 3-396: Please revise paragraph that begins, "In addition to the six allotments discussed above…" to also describe the acreage of the ten-foot drawdown contour in each allotment potentially impacted whether directly or indirectly. This would include the 6 allotments discussed above and the Santa Fe/Ferguson Allotment. Please revise to include the acreage of groundwater drawdown in every allotment potentially impacted by the drawdown regardless if any portion of the Project boundary is located within the allotment. BLM responded on the previous ADEIS comment that this was unnecessary because the impacts that could occur were addressed elsewhere in the document (e.g., water rights and vegetation). We disagree. This is the livestock grazing section and must specifically make the connection to impacts to grazing even if the document includes language to point the reader to other sections for analysis and mitigation. BLM further responded that "The specific acreage by allotment is not needed because vegetation communities (except phreatophytes) are not expected to be impacted by the groundwater drawdown" cannot be correct because there is forage appurtenant to riparian zones, springs, seeps, wet meadows, and sub-irrigated pastures that also within the water drawdown contour. Also, BLM continued that "impacts to overall AUM availability within the allotments as a result of the drawdown are not expected. Past experience has shown that a change in water table will result in a shift in vegetation community rather than a loss of a vegetation community" is misleading. Research within Nevada regarding this issue has concluded that the shift in vegetation community results in much less productive (i.e., less AUMs), desirable, palatable, and nutritive species of invasives—primarily cheat grass, tumble mustard, and Russian thistle. By focusing solely on AUMs, the DEIS fails to acknowledge the reality of impacts related to forage and habitat.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The following sentence has been added to the text in Section 3.12.3.3 in the FEIS, "There are no phreatophytes on private land within the ten-foot drawdown." Mitigation Measure 3.12.3.3-2 has been revised to read, "Mitigation for the potential loss of water available for livestock from stock water rights and other surface waters are described in the Water Resources - Water Quantity impacts discussion (Mitigation Measures 3.2.3.3-2 and 3.2.3.3-3). Mitigation for loss of water available would also mitigate the loss of

vegetation (livestock forage). Additionally, mitigation identified for wild horses (Mitigation Measure 3.13.3.3-1) would also benefit livestock."

## Letter 803, Comment 238

3.12.2.2 Page 3-396: Paragraph that begins, "The following BLM range improvements..." should be revised to also include the improvements that fall within the groundwater drawdown contour.
**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-030-Range Improvements

## Letter 803, Comment 239

Further, please add language to speak to the infrastructure and improvements, including water developments, on private land that fall within the water drawdown contour. This is necessary given the recognized nexus between base property and BLM grazing allotments in statute and regulation. By granting a grazing permit, BLM has already made the determination that the private lands meet the criteria of base property outlined in Sections 3 and 15 of the Taylor Grazing Act. Basically, BLM must make the determination that the base property land and water rights must be capable of and can be used to support livestock for a specified period of time through production of crops, forage, and water. The EIS must make the connection to impacts to base property, land and water, as a recognized connection to grazing permits on BLM administered land. Regardless of this connection, NEPA (and associated regulations) calls for disclosure and framing of mitigation of all impacts even if out of direct BLM jurisdiction.
**Disposition**: Comment acknowledged; does not provide new information

## Response

Section 3.12.3.3 in the EIS states that "no impacts to existing range improvements other than developed spring sites are anticipated." Implementation of water quantity mitigation measures in Section 3.2.3 would effectively mitigate any reductions in water available for use in rangeland management, including livestock grazing. With the mitigation measures in place, the potential impacts to base property rights noted in the comment are not expected to be a concern and no change to the EIS text is necessary. The BLM has also reviewed this question in light of many other mining projects in Nevada and has found no basis for the comment that base property rights (and associated range improvements on private land) can be adversely affected by mine dewatering where water quantity mitigation measures have been adopted.

## Letter 803, Comment 240

3.12.2.2 Page 3-396: First paragraph on page. Please revise sentence to read "An AUM is the amount of forage required by an animal unit (cow/calf pair, five sheep, or one horse)..."
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

The text in the FEIS has been revised as follows, "An AUM is the amount of forage necessary for the sustenance of one cow or its equivalent for a period of one month." This is the definition provided in 43 CFR 4100.0-5.

## Letter 803, Comment 241

3.12.2.2 Page 3-397: Figure 3.12.1 should show private lands within the drawdown area that support livestock grazing. In Section 3.12, include a discussion of private lands and the potential for forage to be impacted by groundwater drawdown. P. 3-401 discusses impacts and mitigation to grazing allotments due to groundwater drawdown but does not disclose similar potential impacts to private lands. Private land, forage production and grazing should not be excluded in the DEIS.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

Where there is the potential for the loss of forage on private land (which would only include riparian areas associated with flowing streams and springs, wetlands, as well as areas of greasewood, rabbitbrush, saltgrass, and meadow grass) mitigation is identified in Sections 3.2.3, 3.9.3, and 3.11.3. This mitigation in water, vegetation, and wetlands indirectly addresses the potential loss to forage on private land. An exception to this is where there are springs located on private land that are within the ten-foot drawdown, the BLM cannot require mitigation be implemented; therefore, there is a potential loss of forage associated with the loss of those specific springs. The FEIS has been revised to include this impact.

## Letter 803, Comment 242

3.12.3.2 and 3.12.3.3 Page 3-399: The methodology and analysis used determine loss of AUMs due to the Project (primarily through fencing) is indefensible and does not take into account the real availability of forage on the ground. When "an area is withdrawn for a single use" all other pre-existing multiple uses in the "withdrawn" area are to absorb the impact in a balanced way--not push the full impact to grazing. A simple geographical math exercise of taking total acreage divided by current AUMs is not based on the methods employed by BLM to adjudicate AUMs in the first place. Certain ecological sites have much higher amounts of forage per acre than

others. The NRCS soil surveys and ecological site descriptions (ESD) actually provide amounts of forage (lb/acre) that are potentially at each site. BLM should simply take the analysis in the soils and vegetation sections of the DEIS and analyze the amount of each ESD that is impacted to come up with AUMs impacted. Further, BLM regulation and the lawsuit Dahl v. Clark mandate how BLM justifies reductions in permitted numbers (suit was over wild horses but has implications across all permitted multiple uses). 43 CFR 4100.3 states "(b) The authorized officer will support these changes by monitoring, documented field observations, ecological site inventory, or other data acceptable to the authorized officer. (c) Before changing grazing preference, the authorized officer will undertake the appropriate analysis as required by the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 et seq.). Under NEPA, the authorized officer will analyze and, if appropriate, document the relevant social, economic, and cultural effects of the proposed action." The court found that wild horse numbers can only be reduced based on data collected on the ground and would apply to grazing as well. Therefore, BLM cannot simply make a calculation of acres impacted and reduce AUMs. There must be data to support any reduction in AUMs. Also, there is inconsistency to how grazing is treated versus wild horses. In this case, grazing is automatically going to be decreased because of 14,204 acres being fenced off. Wild horses will be fenced off of the same area yet there is no projected decrease in wild horse numbers. Therefore, the entire burden of directly lost AUMs will fall upon livestock grazing. This is also a specific example of the Proposed Action being in direct conflict with the policies of Eureka County as outlined in our Master Plan and County Code and this conflict must be described and documented in the EIS. Eureka County calls for no net-loss of AUMs. Please re-analyze to include ecological site descriptions and conditions on the ground defined by robust monitoring data before reductions in AUMs.
**Disposition**: Comment acknowledged; does not provide new information

## Response
The suspension of AUMs resulting from this project was calculated using the same method as when they were originally allocated. As part of the 10-year permit renewal cycle, the BLM will conduct an Ecological Site Inventory. Since the mine proposal is not a grazing action, it is not being conducted at this time. No revisions have been made in the FEIS in response to this comment.

## Letter 803, Comment 243

3.12.3.3 Page 3-399: Please revise text to make it clear that the minimum timeframe for loss of AUMs due to Project fencing will be 70 years. We request revising sentence in second paragraph of 3.12.3.3 to read "At that time, the area will be evaluated…can be returned. Based on this, there is a potential for the AUMs to be unavailable for more than 70 years with potentially some AUMs being unavailable into perpetuity depending on conditions that exist after mine closure and reclamation."
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
The following sentence has been added to the FEIS, "A total of 32 AUMs in the Romano and Roberts Mountain Allotments would be lost in perpetuity as a result of the open pit."

## Letter 803, Comment 244

3.12.3.3 Page 3-400: We are pleased to see better and more accurate analyses of economic impacts. However, the analysis still fails to address our previous ADEIS comments and still fails to make the strong connection to impacts to individuals and family businesses, primarily the Etcheverry family at Roberts Creek Ranch. By lumping both the Roberts Creek and Romano allotments, there is minimizing and downplaying of impacts because EML owns the Romano Ranch and holds the grazing permit. Please revise to separate the impact to each ranch individually. None of these values represent inflationary adjustments since 2000 or projected into the future for 70 years (some sources today value the economic impact of 1 AUM at $75.00/AUM which equates to a loss of $4,126,500.00 over 70 years). There are indirect and induced impacts as well. Based upon information contained in the University of Nevada Reno Technical Report UCED 2005/06-14 Updated Economic Linkages in the Economy of Eureka County, the livestock sector in Eureka County has a final demand multiplier of 2.0283. In short this means that for every $1 generated by the Eureka County livestock sector, the County's economy will benefit by $2.02.. The high final demand multiplier suggests strong economic linkages of the livestock sector to other sectors of the county's economy. Income and employment multipliers are also of importance. The livestock sector has an income multiplier of 1.6812 and an employment multiplier of 1.4439. Thus, for every $1 generated by livestock production, total county household income increases by $1.68 and for every job added by the livestock sector, total employment in Eureka County increases by 1.44 employees. The BLM must take these multipliers and carry out the full analysis in order to adequately disclose and weigh the impacts to ranching operations. Additionally, although difficult to quantify, at a minimum the DEIS should disclose potential economic impacts related to a) reduced base property values and b) impacts to water sources that support grazing operations. Further, this entire analysis, when updated with the information that we have requested, must also go into the Socioeconomics section as it is currently not described there.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-089- Socioeconomic Impacts to Local Businesses

## Letter 803, Comment 245

This is another specific example of the Proposed Action being in direct conflict with the policies of Eureka County as outlined in our Master Plan and County Code and this conflict must be described and documented in the EIS. These documents call for no net-loss of

AUMs and "mitigation of mining activities that may impair the economic future of Eureka County citizens." Since this Project will impair the economic future of Eureka County ranches, albeit only a few, it is inconsistent with our plans and policies.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-131- NEPA Compliance with Eureka County

## Letter 803, Comment 246

33.12.3.3 Page 3-400: Although the economic value of grazing to the overall region is important, the analysis needs to discuss the economic consequences to the ranching family and the loss of income and contribution to ranch value which is critically important to discuss in this DEIS.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-089- Socioeconomic Impacts to Local Businesses

## Letter 803, Comment 247

3.12.3.3 Page 3-400: It is improper for BLM to state that the permanent loss of 32 AUMs is "minimal." First of all, this is directly in conflict with Eureka County's Master Plan and County Code. Secondly, it is inaccurate for BLM to conclude that a few thousand dollars a year loss to an individual and a family business is negligible. Third, by strictly taking only inflation of 3% into account (which is the 20 year average reported by the Bureau of Labor Statistics) since 1999, the value of 1 AUM today is $1990.72. The amount is an ongoing economic loss that will last forever and must be mitigated. Please outline an impact and mitigation measure to address the permanent loss of AUMs. To address this, we suggest that Impact 3.12.3.3-1 can be simply revised to read "Project development and operation under the Proposed Action would result in the loss of up to 781 AUMs for approximately 70 years from the allotments within the fenced Project Area and up to 32 AUMs permanently from the development of the open pit." Mitigation would then be composed of language framed in our next few comments.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-089- Socioeconomic Impacts to Local Businesses

## Letter 803, Comment 248

3.12.3.3 Page 3-400: This entire analysis, when updated with the information that we have requested in the related comments, must also go into the Socioeconomics section as it is currently not described there.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
A reference has been added to the Socioeconomics section to direct readers to the Livestock Grazing and Production section for the discussion of economic impacts resulting from loss of AUMs.

## Letter 803, Comment 249

3.12.3.3 Page 3-401: Please revise entire paragraph to also describe each allotment that may be impacted by the ten-foot drawdown contour. We request that the paragraph read, "Although the 14,204-acre enclosure would not directly impact AUMs within the 3 Bars, Santa Fe/Ferguson, or Lucky C Allotments, each of these allotments in addition to the Roberts Mountain and Romano allotment have a portion of the maximum extent ten-foot ground water drawdown contour located within them could have potential impacts to AUMs due to the possible impacts to forage and habitat related to ground water drawdown." The document currently focuses incorrectly on forage loss only in phreatophyte areas impacted by the water drawdown. See previous ADEIS comment 1907 that was not correctly addressed. BLM response that "vegetation communities (except phreatophytes) are not expected to be impacted by the groundwater drawdown" is not defensible and cannot be correct because there is forage appurtenant to riparian zones, springs, seeps, wet meadows, and sub-irrigated pastures that also within the water drawdown contour.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
The following sentence has been added in the FEIS, "Figure 3.12.1 illustrates the location of phreatophytes relative to the allotments within the Project Area boundary and the ten-foot drawdown contour." Additionally the text in the FEIS has been revised to read, "Impacts are not expected to other vegetation communities that do not rely on the direct connection to ground water."

## Letter 803, Comment 250

3.12.3.3 Page 3-401: What must also be taken into account is that even with successful reseeding of impacted vegetation areas (phreatophytes, riparian vegetation, wet meadows, etc.) there is not a total removal of impacts to AUM availability. If an impact were to occur to vegetation due to the Project, the areas re-vegetated would likely be subject to BLM grazing closures until the area were to

meet BLM established objectives. Through no fault of their own, a grazing permittee would be impacted while re-vegetation efforts are taking place and would likely suffer large economic impacts. This has been seen in many cases where ranchers have had to reduce their herds strictly because of closure due to re-vegetation treatments on the ground. Eureka County has a policy of no loss of AUMs, even temporarily.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-122-Recovery of Temporarily Lost AUMs

## Letter 803, Comment 251

3.12.3.3 Page 3-401: Revise to make it clear that EML will mitigate the impact to grazing permittees, not "would work" to mitigate the impact. We request the revision to read, "EML will fully mitigate and offset the loss of AUMs as a result of the Proposed Action by agreement with impacted grazing permittees. For purposes meant to inform the discussion between EML and the impacted grazing permittee, mitigation could include, but is not limited to: 1) Provide a livestock forage seeding on federally administered land on which the impacted grazing permittee is authorized to graze livestock or on private land owned by the impacted grazing permittee; 2) Provide an alternative livestock watering source in any area where forage was previously unused or underused due to lack of a viable water source on either federally administered land on which the impacted grazing permittee is authorized to graze livestock or private land owned by the impacted grazing permittee; 3) Implement a Rangeland Improvement Project on federally administered land on which the impacted grazing permittee is authorized to graze livestock or a project on private land owned by the impacted grazing permittee which would improve livestock production, forage availability, or rangeland condition (e.g., fencing, weed control, brush management, pinion-juniper thinning)." This language is consistent with (and nearly identical to) Eureka County's policy regarding AUM loss.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-114- Livestock Mitigation Measures

## Letter 803, Comment 252

The DEIS also needs to examine the impacts to the value of the ranch operation as a result of a loss in the AUMs.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-089- Socioeconomic Impacts to Local Businesses

## Letter 803, Comment 253

3.12.3.3 Page 3-401: There must be an impact and mitigation measure framed for impacts to livestock operations on private, base property (land and water).
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
Where there is the potential for the loss of forage on private land (which would include riparian areas associated with flowing streams and springs, wetlands, as well as areas of greasewood, rabbitbrush, saltgrass, and meadow grass) mitigation is identified in Sections 3.2.3, 3.9.3, and 3.11.3. This mitigation in water, vegetation, and wetlands indirectly addresses the potential loss to forage on private land. An exception to this is where there are springs located on private land that are within the ten-foot drawdown, the BLM cannot require mitigation be implemented; therefore, there is a potential loss of forage associated with the loss of those specific springs.

## Letter 803, Comment 254

3.12.3.3 Page 3-401: Changes according to our previous comments regarding stockwater rights (subsisting rights and vested claims) and mitigation to address impacts to stockwater sources under the Water Quantity section of the DEIS must be incorporated here in the grazing section as well.
**Disposition**: Comment acknowledged; does not provide new information

## Response
CC-031-Impacts to Surface Water Quantity

## Letter 803, Comment 255

3.12.3.3 Page 3-402: Impact 3.12.3.3-2 states "Livestock dependent on existing water sources would potentially experience water stress due to water table drawdown . . ." Mitigation measures for these impacts are the same as those described previously for water resources – water quantity impacts (Mitigation Measures 3.2.3.3-2 and 3.2.3.3-3). 1) The triggers for mitigation are not consistent through-out the EIS. Where described in tables, the trigger is a cessation of flow. In the text narrative, the trigger is some unspecified reduction in flow; 2) many of the potentially impacted sources are associated with vested or decreed water rights. Nevada water law

does not allow a reduction in the water associated with these senior rights by a junior appropriator such as EML/KVR; 3) some of the mitigation measures require an inter-basin transfer of water from Kobeh Valley. There is no guarantee that permits for an inter-basin transfer can be acquired; 4) Proposed mitigation measures may take years to permit and put into use. There is no discussion of what happens in the meantime, either from the standpoint of the resource or compensation for the financial impact to the water right holder; 5) All of EML's mining and milling water rights are committed to consumptive use by the project such that EML does not have surplus water rights that could be used for mitigation; and 6) Proposed mitigation measures for impacts that occur after mining ceases for some areas require installation of wells with high peak yields. The DEIS states that the geologic materials in some areas are not considered to be a legitimate source of water supply because they are not particularly permeable. Therefore, many mitigation measures are merely fanciful. Please take all of our previous comments into account to revise to describe mitigation measures that are practical, feasible, and likely.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-082-Mitigation to Water Resource Impacts

## Letter 803, Comment 256

3.12.3.3 Page 3-404: The current statement of "livestock resumption" is confusing and does not make sense. Revise last sentence on first paragraph to read, "...the BLM would evaluate re-permitting of AUMs for livestock grazing within the Project Area."
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
The sentence in the FEIS has been revised to read as follows, "Once vegetation has been successfully re-established (BLM/NDEP standards), the BLM would re-evaluate livestock grazing in the Project Area."

## Letter 803, Comment 257

3.13.2.2 Page 3-411: As previously requested and not adequately responded to, please report the current post-foaling estimated population for each HMA separately rather than using the Roberts Mountain Complex as a whole (255 in Roberts Mtn. HMA and 52 in Whistler HMA which includes the estimated population in the Kobeh Valley HMA and northern portion of Fish Creek HMA). It is impossible to consider the impacts to localized areas without this specific information.
**Disposition**: Other (SEE RESPONSE)

## Response
The information is presented as a complex because wild horses move considerably between HMAs; therefore, reporting as a complex is a more accurate representation of the impact.

## Letter 803, Comment 258

3.13.3.3 Page 3-412: Project pumping and pit dewatering has the potential to create a significant impact to wild horse access to water (Impact 3.13.3.3-1, page 3-412). Mitigation Measure 3.13.3.2-1 provides an option for EML to provide water from the Project production wells which EML owns and operates. EML currently holds water rights for mining and milling purposes only and does not hold water rights to water wild horses. Because EML's testimony before the Nevada State Engineer clearly stated they required all of the 11,300 AF/year water for the Project, they do not have any surplus water to provide wild horses. Also, given Nevada water law, it is uncertain whether or not EML could obtain a water right expressly to water wild horses. In Nevada, there is a history of opposition to water rights for wild horses. As the BLM NEPA Web guide states, "If there is a history of . . . opposition to such measures, the EIS . . . Should acknowledge such opposition . . ." No such disclosure is provided in the DEIS for the Project. Please provide a discussion of the issues related to EML providing water to wild horses, including issues directly related to acquisition of water rights for wild horses and the mechanism for EML to acquire a water right to provide a source of water to wild horses.
**Disposition**: Comment acknowledged; does not provide new information

## Response
CC-048-Water Mitigation for Wildlife and Horses

## Letter 803, Comment 259

3.13.3.3.1 Page 3-412: The document currently focuses incorrectly on "indirect" potential wild horse forage loss only in phreatophyte areas impacted by the water drawdown. BLM response to our previous comment regarding the same issue that "vegetation communities (except phreatophytes) are not expected to be impacted by the groundwater drawdown" cannot be correct because there is forage appurtenant to riparian zones, springs, seeps, wet meadows, and sub-irrigated pastures that also within the water drawdown contour. Please change text to address the impacts to forage at all sources that could be impacted by water pumping, not just phreatophyte areas.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response
CC-020-Impacts to Phreatophytes

## Letter 803, Comment 260

3.13.3.3.1 Page 3-412: Eureka County has major concerns with the way the DEIS analyzes and addresses potential impacts to wild horses. We have brought up these concerns to BLM on both previous ADEIS as well as when we commented on the Wild Horse Mitigation Plan in 2008. First, although wild horses are a federally protected species, it does not mean that they are elevated above other multiple uses. The same logic that goes into not reducing horse numbers must apply to grazing AUMs as well. The mitigation to address wild horse impacts for "better" distribution also applies to livestock grazing and would reduce the same need to reduce livestock grazing. As previously noted, BLM regulation and the lawsuit Dahl v. Clark mandate how BLM justifies reductions in permitted numbers (suit was over wild horses but has implications across all permitted multiple uses). 43 CFR 4100.3 states "(b) The authorized officer will support these changes by monitoring, documented field observations, ecological site inventory, or other data acceptable to the authorized officer. (c) Before changing grazing preference, the authorized officer will undertake the appropriate analysis as required by the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 et seq.). Under NEPA, the authorized officer will analyze and, if appropriate, document the relevant social, economic, and cultural effects of the proposed action." The court found that wild horse numbers can only be reduced based on data collected on the ground and would apply to grazing as well. As reported in the DEIS, current AML in the Roberts Mountain Complex already is being exceeded with currently available water sources and forage and the fecundity of these herds shows no potential for impact under the Proposed Action. Further, there is a call for an increase in water availability from sources that are not currently being used, nor have been in recent years (or really ever). Document must be consistent in its approach across resources and multiple uses.
**Disposition**: Not within document/decision scope (SEE RESPONSE)

## Response

CC-091-Wild Horse Analysis

## Letter 803, Comment 261

3.13.3.3.1 Page 3-415: How can EML obtain a water right to water wild horses when EML has no ownership of wild horses and would be disallowed under State Law? Also, EML improvement of current stockwater sources that have certificated (and some vested) rights and changing the use to wild horses is not consistent with Nevada Water Law or Eureka County's Master Plan and County Code. There needs to be more thorough description in the text (and Appendix C) describing the legal mechanisms to carry forward this mitigation as we believe it is unlawful. We believe the only way to address this issue is to allow improvement of existing water sources and development of new water sources for livestock and EML carry a stockwatering permit (either current or new application). Then, it must be acknowledged that although the water right that EML holds for these sources is for stockwatering, the mitigation is that all of these sources are maintained and made available for wildlife and wild horses (which is already the case on surface waters according to State Law under NRS 501 and NRS 533.367 and require no water right but mandates "customary access" to these sources for wildlife and by extension, wild horses).
**Disposition**: Comment acknowledged; does not provide new information

## Response

CC-048-Water Mitigation for Wildlife and Horses

## Letter 803, Comment 262

3.13.3.4.1 Page 3-403: Residual Adverse Impacts need to also speak of residual impacts to stock water sources, private base property that supports grazing permits (land and water), and socioeconomics.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

Section number is incorrect - 3.12.3.3.1. The residual adverse impacts for water and socioeconomics are addressed in Sections 3.2.3.3 and 3.17.3.3. The residual adverse impacts for socioeconomics have been revised in the FEIS to include impacts to housing, population, economic conditions, and employment.

## Letter 803, Comment 263

3.14.2.2 Page 3-422: Mentioning residences in Diamond Valley is an improvement, but lacks the specificity of the other ranches mentioned. Please provide a map to identify Diamond Valley residences being referenced.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The text in Section 3.14.2.2 has been revised to include the following sentence. "The area in Diamond Valley with residences is shown on Figure 3.14.1." In addition, Figure 3.14.1 has been modified to include a shaded area for the locations of the Diamond Valley residences.

## Letter 803, Comment 264

3.14.2.2 Page 3-422: Livestock grazing on "surrounding ranches" is not discussed in Section 3.12. This section and section 3.14 are void of meaningful discussion of impacts to private lands and ranches. Both sections need to incorporate discussion of private lands to adequately address these topics.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

The text in the FEIS has been revised to state "... Project Area and surrounding allotments ..." Also see the response to Comment #266 from Letter #803.

## Letter 803, Comment 265

3.14.2.2 Page 3-422: This section needs to include a map showing land ownership in the project area and drawdown area.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-056- Land Uses on Private Land

## Letter 803, Comment 266

Please provide a complete discussion of land uses on private lands in the drawdown area.
**Disposition**: Analysis modified (SEE RESPONSE)

## Response

CC-056- Land Uses on Private Land

## Letter 803, Comment 267

3.14.2.2 Page 3-422: DEIS must be updated with the most recent census data to adequately define the current baseline and existing conditions. There are still references to outdated demographic data. We previously made this same comment (see 1954) and BLM responded that "the best available data has been used." The 2010 census data has been available for over a year.
**Disposition**: Other (SEE RESPONSE)

## Response

This section uses 2000 data only to illustrate the amount of BLM-administered land. Population information was based on more recent data from 2009.

## Letter 803, Comment 268

3.14.2.2 Page 3-422: Despite our previous comments regarding the same issue, the DEIS speaks of Roberts Creek Ranch as being north of Mt. Hope. Please revise to state that the ranch is actually southwest from Mt. Hope.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

CC-040- Ranch Locations Relative to Project Area

## Letter 803, Comment 269

3.14.2.2 Page 3-422: Revise paragraph to report how many private properties are within the same distance to the mine as the Alpha Ranch (14.5 miles). The way the paragraph reads now is that only 3 residences are near the mine although the bulk of Diamond Valley residences are as close to Mt. Hope as the Alpha Ranch. In fact, the bulk of Diamond Valley residences are as close to Mt. Hope as the Alpha Ranch. The large majority of all residences outside of the town of Eureka—dozens—are as close to Mt. Hope as Alpha Ranch. This includes the Romano Ranch, the Sadler-Brown Ranch, and the Bailey Ranch which are much closer than Alpha Ranch and the Hay Ranch (Risi) that is as close.
**Disposition**: Factual correction made (SEE RESPONSE)

## Response

CC-040- Ranch Locations Relative to Project Area

## Letter 803, Comment 270

3.14.3 Page 3-425: There is no discussion of the termination or substantial modification of a land use, particularly to private lands. This significance criterion appears to be ignored by BLM. BLM limits its impact analysis to public lands even when the water drawdown affects private land holdings. See previous ADEIS comment 1128 that wasn't addressed. BLM cannot properly determine whether an impact is significant if it has not undertaken a complete analysis of impacts on private land. Please revise to analyze these lands and the potential impacts to land uses, both direct and indirect.
**Disposition**: Analysis modified (SEE RESPONSE)