

Mr. Michael Langley
Senior Project Manager
U.S. Army Corps of Engineers, Arizona-Nevada Office
3636 N. Central Avenue, Suite 900
Phoenix, Arizona 85012-1939

Subject: Arizona File No. SPL-2011-01005-MWL

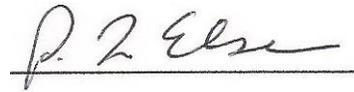
March 8, 2016

Dear Mr. Langley:

The Lower San Pedro Watershed Alliance (LSPWA) appreciates the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the Ray Mine Tailings Storage Facility, Pinal County, Arizona. The Mission of the LSPWA is to unite conservation-minded individuals, groups, and agencies in the lower San Pedro region to protect a threatened riparian ecosystem and its supporting watershed. The LSPWA promotes conservation initiatives and educational programs, fosters a resilient local economy, and resists proposals for large scale or inappropriate development that would cause ecosystem fragmentation, degrade wildlife habitat, devalue conservation investments, and threaten sustainable rural lifestyles. The LSPWA has 194 members, 95 of whom are landowners in the lower San Pedro region, representing over 9,200 acres in private land and over 70,000 acres in leased lands associated with three ranches.

Assuming that you have eliminated siting alternatives that are truly not practicable, as indicated in Appendix B of the DEIS, our primary concern is with the inadequacy of the mitigation component associated a site that is significantly less disturbed and more ecologically functional than some of the alternatives. Please see our attached comments. If you have any questions concerning our comments, please contact Ms. Diane Laush at dlaush@cox.net.

Sincerely,

A handwritten signature in black ink, appearing to read "P. 2 Else", is written over a horizontal line.

Peter Else
Chair, Lower San Pedro Watershed Alliance
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RAY MINE DEIS COMMENTS

The Corps of Engineer's (COE) "Jurisdictional Determination" is based on the definition of the ordinary high mark. Xeroriparian systems, such as those found at Ripsey Wash, are typically excluded as a jurisdictional area when the COE completes a Jurisdictional Determination. We believe that in the desert southwest xeroriparian habitat has important aquatic functions that should be protected by the Clean Water Act. However, the COE jurisdictional area typically only considers the dry, unvegetated wash bottoms on ephemeral drainages and not the adjacent xeroriparian vegetation. Since the xeroriparian vegetation occurs outside of the jurisdictional area, it is not considered when the adverse impacts are determined. WestLand Resources, Inc. mapped 407 acres of xeroriparian vegetation that would be adversely impacted by the Ripsey Wash Tailings Storage Facility (TSF) (Figure 43). The COE, however, determined that only 130 acres of xeroriparian habitat would be adversely impacted (Table 2-1) under the jurisdictional determination. Xeroriparian vegetation is one of the most important functional values of an ephemeral system. In fact, the COE considers this habitat valuable enough that the preservation or restoration of xeroriparian habitat is considered as suitable mitigation for impacts to jurisdictional areas. Therefore, the Lower San Pedro Watershed Alliance (LSPWA) requests that the DEIS be revised to include mitigation for the loss of the xeroriparian habitat at Ripsey Wash.

In addition to undercounting the adverse impact acreage at Ripsey Wash, application of the COE's Mitigation Ratio-Setting Checklist (MRSC) inherently devalues the functional value of the ephemeral drainage. The MRSC evaluates 11 hydrologic, chemical, and biologic functions to determine the compensatory mitigation required to offset impacts to Waters of the United States (U.S.) from a proposed project. The five biological functions measured include: aquatic invertebrate fauna, presence of fish and fish habitat structure, riparian/wetland vegetation structure, age class distribution of woody riparian or wetland vegetation and native/nonnative vegetation species. Three of these functions (aquatic invertebrate fauna, presence of fish and fish habitat structure, and riparian/wetland vegetation structure) are never, or rarely in the case of riparian habitat, present in an ephemeral drainage. This results in an artificially low score and consequently a reduced mitigation ratio when determining compensation for the adverse impacts with large components of xeroriparian habitat such as Ripsey Wash. The Arizona Game and Fish Department (AGFD) utilizes the Species and Habitat Conservation Guide (SHCG) for non-tribal lands across Arizona to evaluate wildlife conservation potential. The SHCG model is intended to identify areas of wildlife conservation potential at a landscape/statewide scale to guide the AGFD's strategic wildlife goals and objectives. One of the five model indicators upon which SHCG mapping values are based is: The importance of the landscape in maintaining biodiversity - represented by the Species of Greatest Conservation Need. The AGFD rated the bottom of Ripsey Wash "10 out of 10" for this indicator.

The LSPWA believes that the mitigation ratio (1.2:1) attached to Mitigation Sites A and D is too low. Mitigation sites A and D consist of preserving existing habitat (no restoration actions will be performed, only management actions, will be taken on the sites). Mitigation Site A and D occur within an existing fenced mitigation area. The DEIS states that active management of these areas will exclude cattle, restrict fuel wood harvesting, and restrict off-road vehicle access to the site. However, these actions are already restricted at the sites due to their location within a monitored, fenced mitigation site. It is highly unlikely that any of these activities would occur in the future unless ASARCO were to relocate the existing fence to exclude these areas. This seems unlikely due to the increased amount of fencing that would be required. We agree that ASARCO should be given mitigation credit for these parcels; but we believe that the mitigation credit should be less than proposed in the DEIS. Similarly mitigation credit for the preservation of 11.4 acres of Site E should also be reduced.

We saw no discussion in the DEIS that takes into account the lag time between the loss of habitat and the associated functions and values at Ripsey Wash and the realization of the full functions and values at the restoration sites. In addition, there appears to be a discrepancy with the mitigation acreage for Site E. The total acreage for Site E is referenced in various places throughout the document as 124.9 acres (113.5 acres of restoration and 11.4 acres of preservation). Appendix A: Summary of Offsite Mitigation Areas, Table 9 (page 15) breaks down Site E into Ephemeral Classes. When the acreages of the four areas are added together they total 163.81 acres. This is 38.91 acres over the acreage listed in all other tables. Please explain this discrepancy and revise the DEIS as needed.

In addition, Mitigation Site E is located immediately adjacent to the Gila River and within the Gila River floodplain. The mitigation site will be subject to potential flooding which could remove all vegetation from the mitigation site. The Revised Conceptual Mitigation Plan (Mitigation Plan) considers this potential as unlikely; however, no justification is given for this determination. The Mitigation Plan has a Dedicated Account to deal with unforeseen management and maintenance issues. This account will be paid up in 10 years and no further contributions by ASARCO will be required. It does not appear that any contingency has been made for complete replacement of the restoration area if it is lost during a flood event. The Ripsey Wash habitat will be permanently lost; however, only monitoring and maintenance issues are guaranteed at Mitigation Site E as described below (Appendix A, Page 11):

Once the Dedicated Account is funded, Asarco, its successors, or assigns (including the AGFD or other third-party conservation entity) shall not be required to expend any additional funds for annual monitoring and maintenance activities. In the event that extraordinary circumstances require the significant expenditure of funds that would threaten the integrity of the Dedicated Account, Asarco, its successors, or assigns (including any third-party conservation entity) shall notify the Corps of the specific circumstances. Asarco, its successors, or assigns and the Corps will jointly consider the specific circumstances and will mutually agree upon the appropriate

action(s) to be taken and how to fund these action(s). This may include Asarco, or its successors or assigns, voluntarily contributing additional funds and/or the Corps, Asarco, and its successors or assigns working cooperatively to seek outside funding to accomplish the extraordinary maintenance actions.

Section 2.3.7 (page 2-13) describes the "water use and management" for the Ripsey Wash TSF. The DEIS does not disclose the amount of water expected to be utilized over the life of the project. The water will be taken from the Hayden well field located at the confluence of the Gila and San Pedro Rivers. There was no discussion of the potential impacts to riparian vegetation from the additional withdrawal of groundwater in this area. The DEIS should be revised to include an estimate of the water requirements for the Ripsey Wash TSF. This should be feasible based on figures from the Elder Gulch TSF. The DEIS should also be revised to analyze the potential adverse impacts to riparian vegetation along the Gila and San Pedro Rivers from the increased water withdrawal.

Finally, the DEIS states that there will no impact to Zelleweger Gulch or the unnamed drainage to the east from the diversion of Ripsey Wash flows into these drainages. This conclusion is based on the determination that upstream detention basins will detain Ripsey Wash flood waters which can then be slowly released into Zelleweger and the unnamed drainage. However, detention of the water in the basins will permit the sediment load to drop out. The subsequent release of this "hungry" water would result in increased erosion and scouring of Zelleweger Wash and the unnamed channel to the east. The DEIS should be revised to include a full analysis of the adverse impacts to Zelleweger Wash and the unnamed wash to the east from the diverted flows of Ripsey Wash. Impacts to these areas must also be considered for mitigation.

In conclusion we believe that the proposed mitigation for adverse impacts at the Ripsey Wash Tailings Facility is inadequate for the following reasons:

- 1) The Jurisdictional Determination does not consider the total amount of xeroriparian vegetation impacted at Ripsey Wash;
- 2) The COE's Mitigation Ratio-Setting Checklist has inherent flaws which arbitrarily reduce the value of xeroriparian habitat;
- 3) The mitigation value attached to the preservation of existing habitat is over-inflated;
- 4) The COE did not consider the lag time between habitat loss at Ripsey Wash, Zelleweger Gulch and the unnamed drainage and the restored functions and values of the mitigation habitat;
- 5) The mitigation acreage attached to Site E was increased by 38.91 acres when the mitigation credits were applied. This discrepancy results in an inaccurate mitigation accounting;

6) There are no long-term plans to revegetate Mitigation Site E if it is lost due to natural flooding of the Gila River;

7) No analysis was conducted on the adverse impacts to riparian vegetation along the confluence of the Gila and San Pedro Rivers from the additional ground water withdrawal at the Hayden well field utilized to support the Ripsey Wash TSF.

8) The COE did not consider the adverse impacts to Zelleweger Gulch and the unnamed drainage to the east from the diversion of Ripsey Wash flows around the Tailings Storage Facility. The EIS should be revised to include a full analysis of the adverse effects to these drainages from the diversion of Ripsey Wash flows. An alternative would be to place Ripsey Wash flows in a contained drainage system and route them either underneath or adjacent to tailings storage facility, returning them to the unaltered portion of Ripsey Wash just prior to the Gila River.

SPECIFIC COMMENTS EXECUTIVE SUMMARY

(NOTE: page numbers refer to actual document page not pdf page number)

Page ES-3; line 4: Footnote 6 - missing word (not) from sentence

Page ES 21 -Cultural Resource impacts to Hackberry wash very confusing.

Page ES 24 (6.15.1; paragraph 3), next to last sentence: Missing word "beaver" after "American".

Page ES 25 - Sharp-shinned Hawk is not a year-round resident. Why does Golden Eagle have scientific name in parentheses but other species do not?

Page ES-35 - spelling "Pina" Indian Mallow should be "Pima"

Page ES-30 (Indirect Impacts to WUS) - Although not downstream, the "functional value" of Zelleweger Wash will be altered due to the increased flows diverted from Ripsey Wash. Ripsey Wash covers 18.1 sq. mi. whereas Zelleweger Wash covers only 4.2 sq. mi. The increased flows into Zelleweger will result in increased erosion of the streambed, loss of adjacent vegetation thereby reducing the value of the system to wildlife.

Page ES-36 - Loss of roost sites for CA Leaf-nosed bat and Pocketed Freetail bat were not considered.

Page ES-37 - How can impacts to BLM sensitive species be determined as minor to moderate if you don't know what species are actually present?

SPECIFIC COMMENTS TO MAIN DEIS

Section 3.13.1.2 (Upland Vegetation Ripsey Wash) - Vegetation types other than upland (i.e. riparian) are discussed. Possibly change category heading to simply "Vegetation".

Correct spelling of following scientific names:

catclaw acacia (*Senegalia greggii*)

desert hackberry (*Celtis ehrenbergiana*); looks like they refer to it as spiny hackberry now

whitethorn acacia (*Vachellia constricta*)

Section 3.13.1.3 (Upland Vegetation Hackberry Gulch): Vegetation types other than upland (i.e. riparian) are discussed. Possibly change category heading to simply "Vegetation".

Correct spelling of scientific name for creosote bush (*Larrea tridentata*)

Section 3.13.1, Page 3-121, Table 3-61 and throughout document - Replace Xenoriparian with Xeroriparian throughout the document.

Section 3.15.1.7, Page 3-150- add word "be" near end of second sentence. (likely to be similar)

Section 3.15.1.8, Page 3-150- capitalize "G" in gila woodpecker

Section 3.15.1.12.1, Page 3-158 - range of breeding SWF should read: . . . including Colorado River, near mouth of Little Colorado River downstream to Yuma (not south of Yuma).

Section 3.4.2.2, Page 3-52, Paragraph 5 - Statement "Diversion of flows into adjacent washes "could" result in increased erosion. Replace "could" with "would".

Section 3.4.2.2, Page 3-52 - Construction of detention basins to hold flood waters from Ripsey prior to release into Zelleweger would result in the sediment load dropping out. The subsequent release of this "hungry" water would result in increased erosion and scouring of Zelleweger Wash and the unnamed channel to the east. The DEIS should be revised to include a full analysis of the adverse impacts to Zelleweger Wash and the unnamed wash to the east from the diverted flows of Ripsey Wash. Impacts to these areas must also be considered for mitigation.

Section 3.15.1.5, Page 3-148 - Sharp-shinned hawks are not year-round residents; they are winter residents of the area.

3.15.2.2.2, Page 3-161 - The statement: after mine closure and reclamation adjacent unaffected habitat would be more fully utilized - However, the time frame of 20-50 years makes the potential mitigative nature of this statement negligible.

3.15.2.2.4, Page 3-162- Response to "no documented mortalities at Elder Gulch site". Was the area surveyed on a regular basis? If so, where did the survey take place and how far from tailing facility. It's unlikely that wildlife would "drop dead" in plain sight at the tailings facility. Sick wildlife would tend to find a secluded spot to rest. So just because no wildlife were observed doesn't preclude the fact that there could have been mortalities. With respect to the presence of mosquitofish - they can survive very inhospitable conditions.

3.15.2.2.11, Page 3-164- Lawrence's Goldfinch are erratic and irregular fall and winter visitors. Instances of breeding have been very limited and not documented since 1980 according to the Arizona Breeding Bird Atlas. Remove references to Lawrence's Goldfinch breeding in the area. It is also unlikely that gray vireos breed in the area. They are typically found in pinyon pine/juniper habitat. Gray vireos breed between 3500-6800 feet in elevation.

3.15.2.2.14, Page 3-15 - The impact to bat species was not thoroughly evaluated. Bat populations are becoming increasingly imperiled throughout the United States. Despite the fact that no major roost sites were present in the project area, there was no discussion of the closest roost site for any species. The DEIS just mentioned potential roost sites in nearby mountains. Bats can travel long distances to forage. The nearest roost and maternity sites for each species should be determined via AGFD files and the loss of 2000 acres of potential foraging habitat for each species should be evaluated.

Appendix J- Clean Water Act Section 404 Conceptual Mitigation Plan AND Appendix A (under Appendix J) - Ripsey Wash Tailings Storage Facility Mitigation Ratio-Setting Checklist

Appendix J, Sub Appendix A, Table 2, Page 4, Summary of Offsite Mitigation Areas: Acreage for Site E (124.9) does not match the acreage listed for Site E in Table 9, Page 15 (Final Mitigation Credits Applied by Impact Drainage Class and Mitigation Site) of 163.81 acres. Where did the additional 38.91 acres of habitat in Mitigation Site E come from? In addition, removing the additional acreage results in a shortage of mitigation credit of 6.83 acres.