

# PUBLIC NOTICE

## APPLICATION FOR PERMIT

### US Army Corps of Engineers®

**Public Notice/Application No.:** SPL-1990-4008400-RJD

**Comment Period:** October 17, 2008 through October 31, 2008

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#### **Applicant**

ASARCO LLC - Ray Operations  
Mr. Richard Rhoades  
PO Box 8  
Hayden, Arizona 85235  
(520) 356-2200

#### **Agent**

WestLand Resources, Inc.  
Mr. James A Tress, Jr.  
4001 E Paradise Falls Drive  
Tucson, Arizona 85712  
(520) 206-9585

#### **Location**

The proposed work would occur in Elder Gulch and other ephemeral tributary drainages at Asarco's Ray Mine located approximately eight miles northwest of Kearny, Pinal County, Arizona (Figure 1).

#### **Activity**

The applicant is seeking a Department of the Army Section 404 (Clean Water Act) permit to discharge dredged and/or fill material into waters of the United States associated with continued copper mining operations at the Ray Mine (Figure 2). In 1991 Asarco was issued a Section 404 permit to construct and operate the Elder Gulch tailings facility (25-year life expectancy) and to undertake other mining activities within waters of the United States. Both the tailings facility and the other mining activities have been in continuous operation since 1991. The pending request is to authorize: (a) the continued operation and expansion of the Elder Gulch tailings facility to the height authorized in the facility's original aquifer protection permit (APP) issued on September 25, 1991 by the State of Arizona; (b) the construction of a diversion channel upgradient of the Elder Gulch tailings facility as required by the facility's APP; and (c) continue to discharge waste rock in the waste rock dumps shown in the enclosed figures. These proposed activities would result in the permanent loss of an additional 1.50 acres of ephemeral wash habitat. No loss of wetland, intermittent or perennial watercourse would occur if these activities are permitted. Additional information is provided on pages 3-4 and the attached drawings.

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Interested parties are hereby notified that an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). Interested parties are invited to provide their views on the proposed work, which will become a part of the record and will be considered in the decision. This permit application will be issued or denied under Section 404 of the Clean Water Act (33 U.S.C. 1344). Comments can be e-mailed to [robert.j.dummer@usace.army.mil](mailto:robert.j.dummer@usace.army.mil) or mailed to:

**U. S. Army Corps of Engineers**  
**ATTENTION: Robert Dummer (SPL-1990-4008400-RJD)**  
**3636 N. Central Avenue, Suite 900**  
**Phoenix, AZ 85012-1936**

## Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, the evaluation of the activity will include application of the Environmental Protection Agency (EPA) Guidelines (40 CFR 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

## Preliminary Review of Selected Factors

**EIS Determination** – A preliminary determination has been made that an environmental impact statement is not required for the proposed work.

**Water Quality** – The applicant is required to obtain water quality certification, under Section 401 of the Clean Water Act, from the Arizona Department of Environmental Quality. Section 401 of the Clean Water Act requires that any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers. ADEQ certified the original permit for this facility on October 8, 1991. A new certification is being requested.

**Cultural Resources** – At the time the Section 404 permit was issued in 1991, formal consultation and a Programmatic Agreement were completed between the Corps of Engineers, the Advisory Council on Historic Preservation, the State Historic Preservation Office, Asarco, Bureau of Land Management, Arizona State Land Department, and the appropriate Native American Tribes regarding potential effect on cultural resources. In compliance with the Programmatic Agreement two data recovery reports were completed. The two final data recovery reports are *A Hohokam Resource Exploitation and Agriculture in the Dripping Springs Mountains: AZ V:13:127(ASM)*, *A Multiple Activity Site* (1995) and *Archaic and Hohokam Subsistence-Settlement Systems in the Dripping Spring Mountains: Excavations at the Elder Gulch Community near Kelvin, Arizona* (1996). These earlier reports include the results of cultural resource surveys for the geographic areas that would be impacted by the currently proposed activities. An evaluation of these survey reports shows that the proposed activities would have no effect on any property listed or eligible for listing on the National Register of Historic Places that was not treated as part of the previous data recovery plans. Therefore, formal consultation under Section 106 of the National Register of Historic Places is not required. This review constitutes the extent of cultural resources investigations by the District Engineer, and he is otherwise unaware of the presence of any additional resources.

**Endangered Species** – Preliminary determinations indicate that the proposed activity will not affect any endangered or threatened species, or their critical habitat. Therefore, formal consultation under Section 7(c) of the Endangered Species Act does not appear to be required.

**Public Hearing** – Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

### **Proposed Activity for Which a Permit is Required**

*(1) Continued operation and expansion of the existing tailings facility*

To continue operations and expand the existing Elder Gulch tailings facility by extending the bottom drains and to raise the ultimate elevation of the tailings to 2,590 feet above sea level as shown in the enclosed figures.

*(2) Diversion Channel*

To construct upon closure of the Elder Gulch tailings impoundment a stormwater diversion channel upstream of the tailing facility that is capable of diverting the 100-year, 24-hour storm event around the facility as shown in the enclosed figures.

*(3) Waste Rock*

To continue to discharge waste rock into waste rock dumps as shown in the enclosed figures.

To complete the activities described above the permittee would be authorized to complete the filling of the full 45.18 acres of waters of the United States as authorized by the 1991 permit. Also, the current request would result in the additional loss of 1.50 acres of ephemeral watercourses at the Elder Gulch tailings facility (Figure 3) that were not included in the 1991 permit. Construction of the diversion channel for the tailings facility would account for 1.43 acres of the additional loss with the remaining 0.07 acres of additional loss accounted for by the raising of the ultimate height of the tailings facility. No additional loss of wetland, intermittent stream, or perennial stream would be authorized by this proposal. Therefore, the combined loss of waters of the United States from the 1991 permitted activities and this proposal would be 46.68 acres.

### **Additional Project Information**

**Basic Project Purpose:** The basic project purpose comprises the fundamental, essential or irreducible purpose of the proposed project, and serves to guide the Corps in establishing whether the applicant's proposal is water dependent (40 CFR 230.10(a)(3)). The basic project purpose is to mine copper.

**Overall Project Purpose:** The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and further defines the basic project purpose in a manner that more specifically describes the applicant's goals for the proposed project. This establishes the criteria for analyzing a reasonable range of project alternatives. The overall project purpose is to: (1) authorize continued operation and expansion of the Elder Gulch tailings facility; (2) authorize construction of a diversion channel as mandated by the facility's Aquifer Protection Permit and original 404 permit; and (3) to continue dumping waste rock in waste rock dumps.

**Background Information:** The Elder Gulch tailings impoundment was designed for an estimated 25-year life and was permitted under Section 404 of the Clean Water Act by a permit issued on November 1, 1991. The 1991 permit authorized impacts to 2.13 acres of wetlands and 43.05 acres of other waters (for a total of 45.18 acres of waters of the United States). Compensatory mitigation was accomplished through a habitat restoration program at Asarco's PZ Ranch. Construction of the Elder Gulch tailings facility began shortly after permit issuance in 1991, and the facility has remained in continuous operation since that time. The facility was issued a permit effective for five years with the anticipation that additional authorizations would be issued over the life of the facility. The pending application includes a request for renewal of this authorization, expansion of the Elder Gulch facility and at

closure construction of a diversion channel above the Elder Gulch facility.

Impacts to waters of the U.S. resulting from the revised operation of the facility are estimated to be an additional 1.50 acres. Additional impacts to waters of the U.S. (0.07 acres) would occur as a result of extension of the existing under-drain system (Figures 3 and 5) for the collection of seepage fluids or surface water flows in the tailings impoundment area. Figures 2 and 3 also reflect necessary changes to the ultimate embankment footprint at the downgradient edge of the facility, but this activity would have no impacts on waters of the U.S. Additional impacts to waters of the U.S. (1.43 acres) would occur as a result of the construction of the diversion channel, as required by Aquifer Protection Permit (APP). The direct loss of waters of the U.S. from construction of the diversion channel would be 0.21 acres with an additional 1.22 acres of waters of the U.S. lost between the diversion channel and the upper limit of the tailings facility. Figures 2, 3 and 6 show an approximate location and design for the diversion channel. Figure 6 provides a conceptual cross-section of the channel. The design of the channel will include an energy dissipating discharge structure at the channel outlet to reduce erosion and scour effects in the receiving wash. The proposed activity will not encroach on Burro Springs.

Construction of the Elder Gulch tailings facility was authorized by an Aquifer Protection Permit (APP) issued by the Arizona Department of Environmental Quality (ADEQ) on September 25, 1991 (permit No. P-102278). This APP is still in effect. Compliance with the APP is a condition of the original 404 permit issued in 1991 and compliance with the APP would continue as a condition of any issued permit. Under the APP, the applicant is required to design and maintain upon closure of the Elder Gulch tailings impoundment a stormwater diversion channel capable of diverting the 100-year, 24-hour storm event. The purpose of the diversion channel is to carry upgradient stormwater flows around the Elder Gulch tailings impoundment, thereby preventing stormwater from collecting on the closed tailings facility. The channel is planned to be constructed at closure, which under the proposed action is estimated to occur in the 2018-2020 time frame. The diversion channel was approved and required by the Corps in 1991 but the impacts to washes resulting from its construction and mitigation for such impacts were not included in the 1991 permit because the location and design of the channel was not sufficiently known at that time. The current application encompasses the impacts to waters of the U.S. resulting from the planned construction of the required diversion channel that is estimated to occur in the 2018-2020 timeframe.

**Avoidance, Minimization and Mitigation:** Avoidance and minimization would be achieved as follows: (1) impacts from the continued operation of the tailings impoundment to its design capacity would minimize the additional loss of waters to an estimated 0.07 acre of waters of the U.S.; and (2) at closure of the tailings facility the APP-mandated stormwater diversion channel must intersect waters in order to perform its function, but it would be located as close as practicable to the upstream portion of the tailings facility to minimize the loss of waters of the U.S.

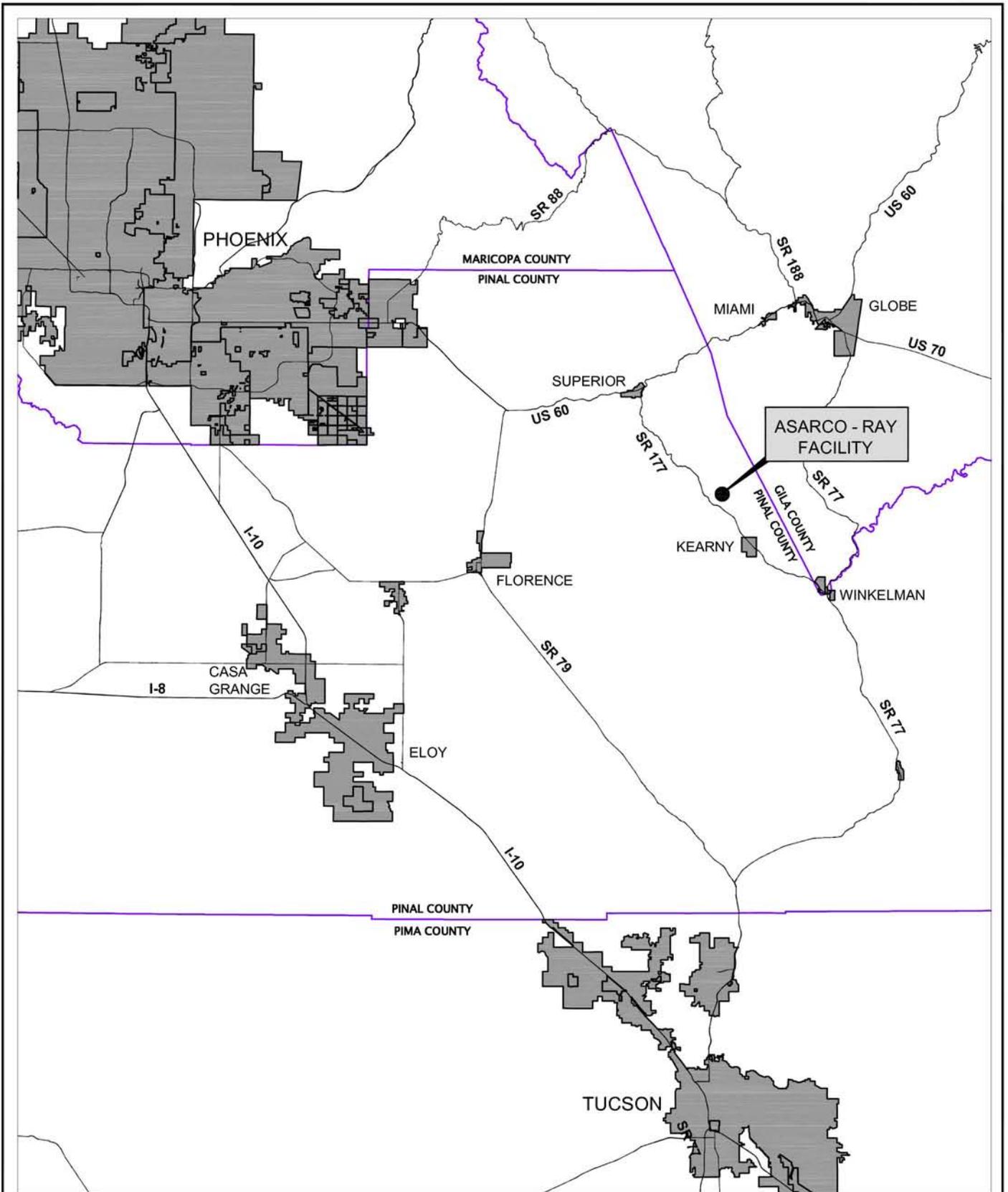
The proposed activity is expected to result in the permanent loss of 1.50 acres of waters of the U.S., beyond those waters of the U.S. already mitigated for under the original 404 permit. The waters of the U.S. lost as a result of the project are comprised solely of ephemeral drainages. Loss of waters will result from direct impact from site preparation activities (extension of the under-drain system) associated with continued operation of the tailings facility, direct impact of the proposed diversion channel and associated outfall structure, and isolation of waters of the U.S. downgradient of the diversion channel. Compensatory mitigation would be provided for the additional unavoidable impact to 1.50 acres of ephemeral waters of the U.S. through additional restoration efforts at PZ Ranch, contribution to an in-lieu fee program, or a combination thereof.

### **Proposed Special Conditions**

To be developed.

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For additional information please call Robert J. Dummer at (602) 640-5385. This public notice is issued by the Chief, Arizona Branch, Regulatory Division.



T.3S.,R.13E., Portion of Sections 25, & 36  
 T.3S.,R.14E., Portion of Sections 29, 30, 31, & 32  
 Pinal County, Arizona  
 Kearny & Hot Tamale Peak USGS 7.5' Quadrangles

**ASARCO – RAY MINE**  
 Section 404 Permit  
 ACOE File No. SPL-1990-4008400-RJD

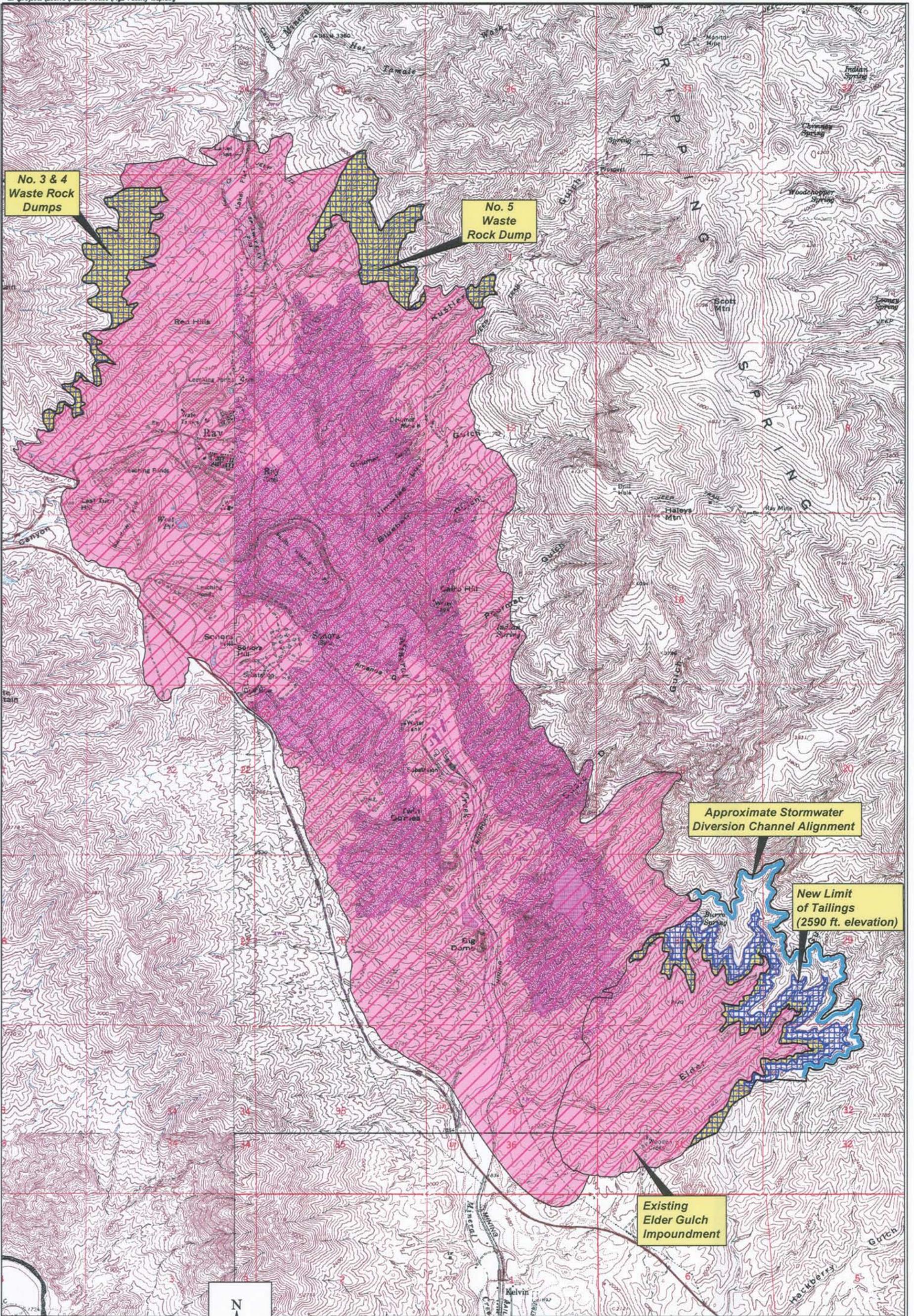
PROJECT LOCATION MAP

Figure 1 of 6

**WestLand Resources Inc.**  
 Engineering and Environmental Consultants  
 4001 E. Paradise Falls Drive  
 Tucson, Az 85712 (520) 206-9055

0 7 Mi 14 Mi  
 APPROX. SCALE: 1" = 14 Miles





-  Ray Mine Facility
-  2008 Proposed Direct Fill Area
-  Previously Permitted Fill Area
-  Approximate Stormwater Diversion Channel Alignment

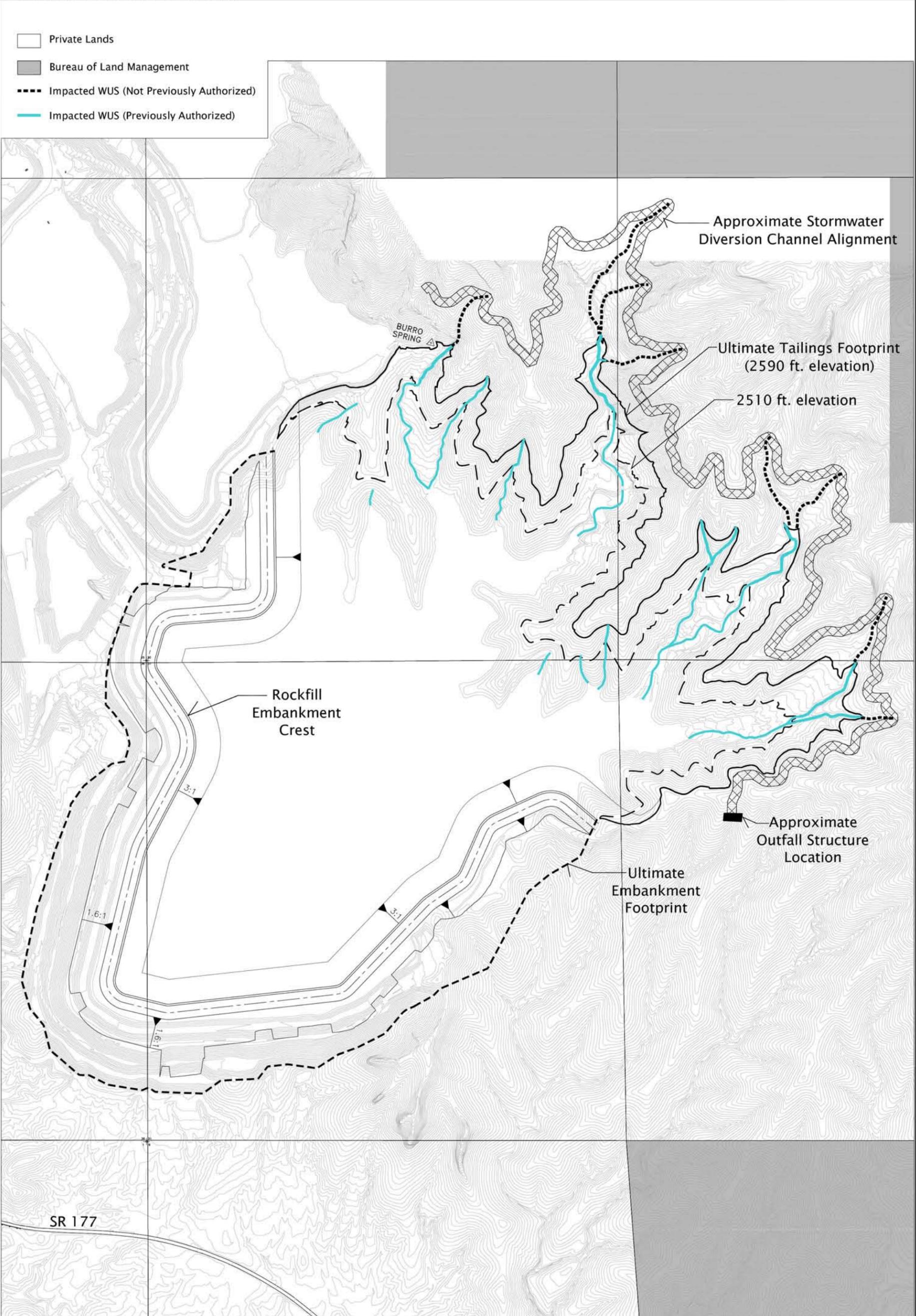


0' 1400' 2800'  
SCALE 1" = 2800'

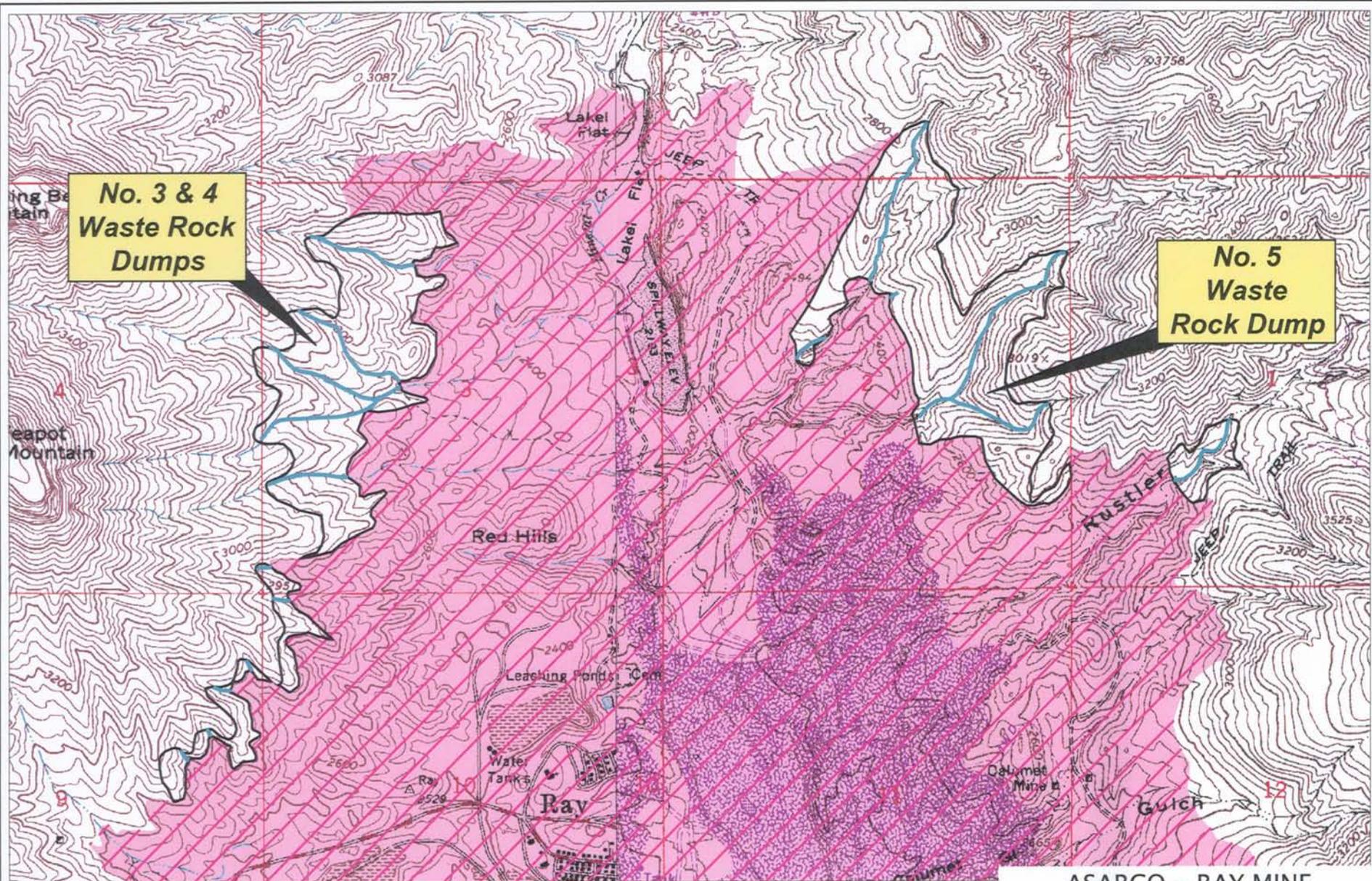
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**ASARCO - RAY MINE**  
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FACILITY MAP  
Figure 2 of 6



M:\projects\2013\13\Public Notice\Fig4 WUS Impacts-Waste Rock Dumps.dwg



  
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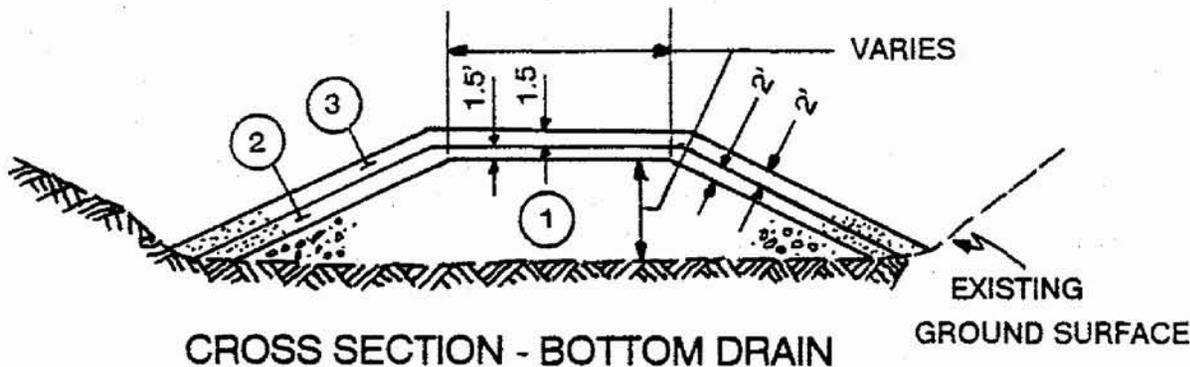
0' 900' 1800'  
 SCALE 1" = 1800'



-  Ray Mine Facility
-  Impacted WUS (Previously Authorized)

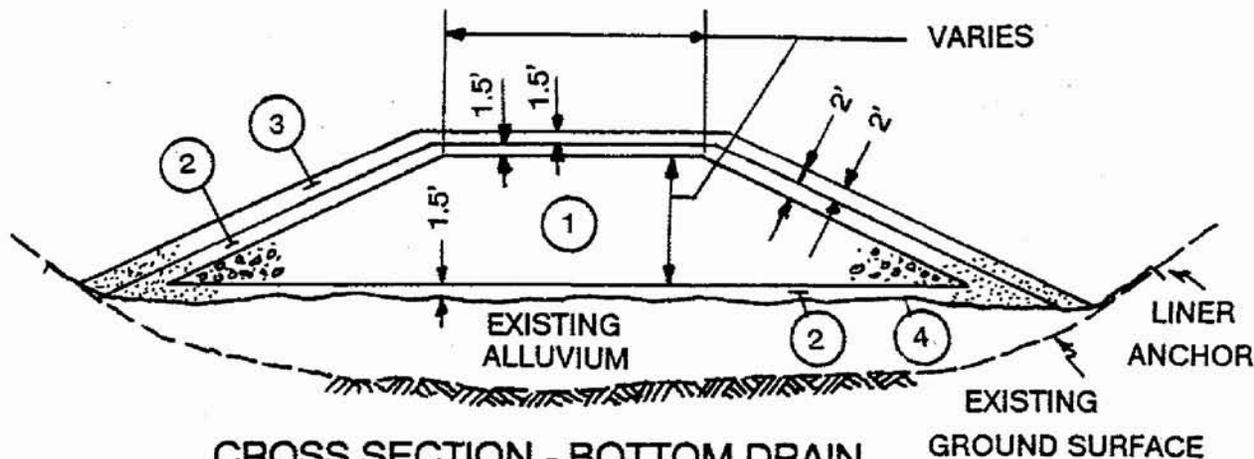
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WATERS OF THE US IMPACTS -  
 WASTE ROCK DUMPS  
 Figure 4 of 6



**CROSS SECTION - BOTTOM DRAIN**

ON BARE ROCK FOUNDATION, BIG DOME FORMATION



**CROSS SECTION - BOTTOM DRAIN**

WHERE BIG DOME FORMATION IS OVERLAIN WITH ALLUVIUM

**NOTES:**

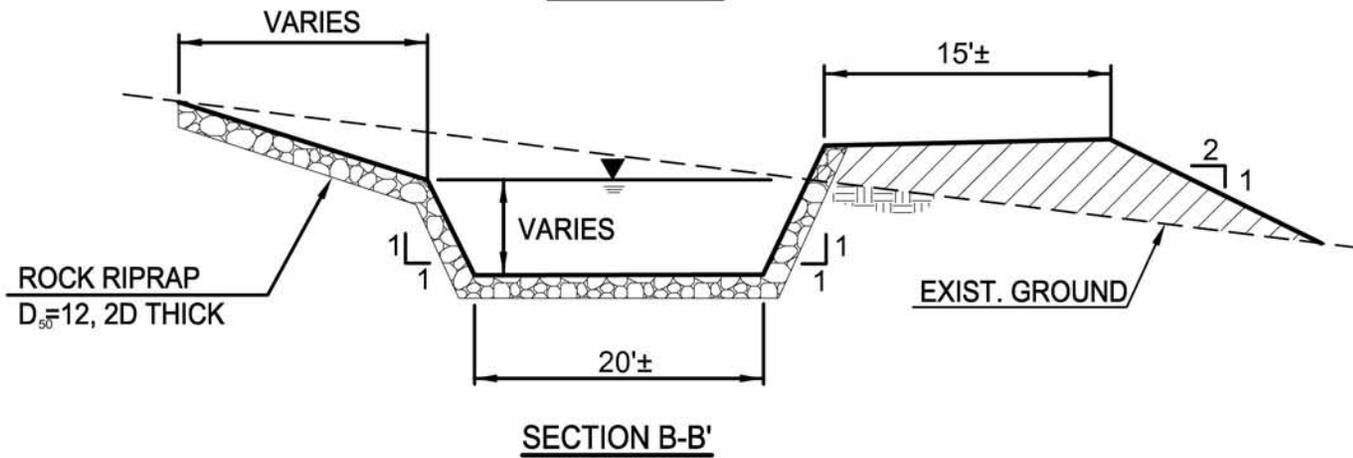
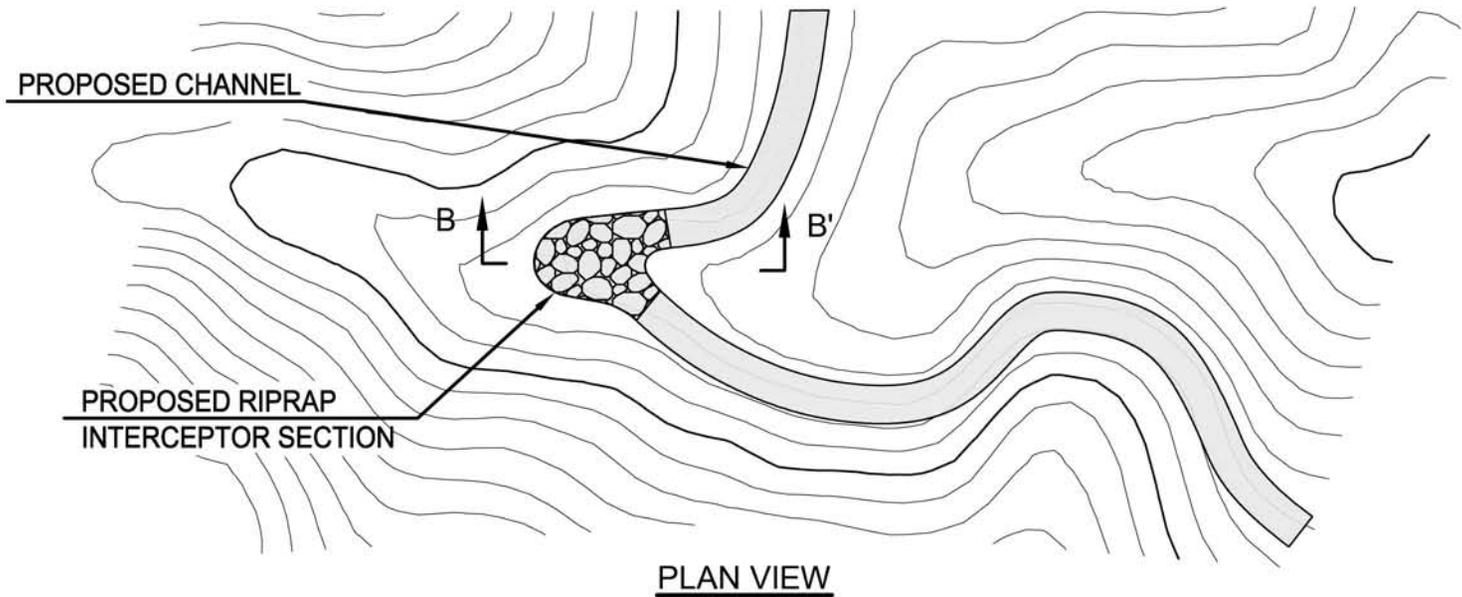
- 1 DRAIN ROCK TO CONSIST OF 3 1/2 INCH MAXIMUM SIZE ROCK, PRODUCED FROM CRUSHED QUARTZITE MINE OVERBURDEN.
- 2 SAND AND GRAVEL FILTER PRODUCED FROM PROCESSED QUARTZITE MINE OVERBURDEN.
- 3 SAND FILTER FILTER TO CONSIST OF CRUSHED AND SCREENED QUARTZITE MINE WASTE ROCK MEETING THE SPECIFIED GRADATION CRITERIA.
- 4 HDPE LINER.

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BOTTOM DRAIN CROSS SECTIONS

Figure 5 of 6

M:\projects\203.13\Public Notice\Fig6 Conceptual Diversion Channel Cross Section.dwg



CHANNEL INTERCEPTOR SECTION

  
WestLand Resources Inc.  
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CONCEPTUAL DIVERSION CHANNEL CROSS SECTION

Figure 6 of 6

Oct 09, 2008 - 4:49pm renew