MEMORANDUM

Date: December 30, 2013

To: The Honorable Chairman and Members
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator

Re: County Comments Regarding Rosemont Mine’s Compensatory Mitigation Proposal for Impacts to Waters of the United States

Attached please find my December 30, 2013 letter to the Los Angeles District Engineer of the US Army Corps of Engineers. This letter provides the County’s comments on Rosemont Mine’s compensatory mitigation proposal for impacts of the proposed mine to Waters of the United States.

Please contact me if you have any questions regarding this correspondence.

CHH/mjk

Attachment
December 30, 2013

Colonel Kim Colloton
District, Engineer, Los Angles District
US Army Corps of Engineers
P. O. Box 532711
Los Angeles, California 90053-2325

Re:  US Environmental Protection Agency Region IX November, 2013 Letter Regarding Its Analysis of the Updated Draft Clean Water Act Section 404 Compensatory Mitigation Proposal for Rosemont Mine, Pima County, Arizona and the December 13, 2013 Rosemont Copper Letter Regarding the Same Subject

Dear Colonel Colloton:

Pima County and the Pima County Regional Flood Control District (RFCD) would like to take this opportunity to provide you with our position regarding the Rosemont Copper proposal for mitigating adverse impacts on Waters of the United States (WUS), ephemeral streams and riparian areas by their mining proposal. The proposed impacts are significant and substantial within the Cienega Basin Watershed, a watershed the County has attempted to conserve over the last three decades. Impacts to the watershed will come from the actual mining activities that will result in the direct impact to 5,431 acres of land that have inherent environment functions and ecosystem services. Indirect, offsite impacts from the mining activities include diversion of both surface water flows (impacting downstream resources) and groundwater subflows intercepted by the mining activities supporting wetlands and functions of even ephemeral WUS).

Pima County and the RFCD Have Heavily Invested in Protecting the Cienega Basin Watershed

The County’s concerns about the impacts from the Rosemont project arise from the uniqueness of the Cienega Basin Watershed and our efforts to protect it as a treasured natural resource. The uniqueness of the watershed comes from the fact that it supports large, low-elevation groundwater-dependent ecosystems in a county where depletion of groundwater has already caused the loss of the largest and most significant stream in southern Arizona, the Santa Cruz River. The Cienega Basin Watershed is remarkable for being nearly undeveloped and free of the exotic aquatic species that characterize the San Pedro River and other streams in southern Arizona. This watershed provides valuable habitat for 11 species that are either federally listed or proposed for listing. The scale of the impacts from the Rosemont mine and its position in the headwaters of the watershed threaten the most ecologically intact remnants of the Cienega Basin Watershed.

Community efforts to protect the watershed began 40 years ago, when the Pima County Board of Supervisors was first confronted with a proposal for a new satellite city (Attachment 1). The community debate about the proposal centered largely on water issues.

Recognizing the longstanding interest of citizens in Pima and Santa Cruz Counties for protecting natural and scenic values as well as water resources, Congress designated a significant portion of the watershed as the Las Cienegas National Conservation Area.

The County’s acquisitions along the Cienega Creek began in 1980 with the purchase of what is now called the Cienega Creek Natural Preserve from Horizon Land Company. These initial acquisitions have been followed with the acquisition and development of the Cienega Valley Empire Ranch Reserve, including open space acquisitions of the Bar-V Ranch, Sands Ranch, Clyne Ranch, and Empirita Ranch and the expansion of Colossal Cave Mountain Park and the Cienega Creek Natural Preserve and other related acquisitions (Attachment 2). All of these acquisitions have been to protect the watershed basin and these unique groundwater-based stream ecosystems that provide a myriad of benefits to the natural and cultural fabric of our County.²

² Protecting Our Land, Water and Heritage, Pima County’s Voter Supported Conservation Efforts, February 2011; Pima County DEIS comments, 2012.
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These open space acquisitions complement the protection of this watershed and are
reported to federal authorities through our stormwater management [Clean Water Act
(CWA) Section 402] program. Our efforts to monitor the water quality of Cienega Creek
and Davidson Canyon began in 1987 with water quality sampling, leading to an
interagency petition in 1990 to protect Cienega Creek within the Natural Preserve under
the State of Arizona’s Outstanding Waters Program. This program imposes anti-
degradation standards under State water quality rules. That petition was granted, along
with the Pima Association of Government’s 2005 request to designate Davidson Canyon
as an Outstanding Arizona Water pursuant to R18-11-112 of the Arizona Administrative
Code. The designation of Davidson Canyon was sought to protect the high-quality water
that Davidson provides to Cienega Creek, and ultimately Tucson, via springs and
groundwater underflows. Today, the Pima Association of Governments’ monitors a host
of water-related indicators, including shallow groundwater and quarterly observations of
surface flows along Davidson Canyon. As a result of these efforts and the habitat
conservation planning we have done with US Fish and Wildlife Service, we know a great
deal about the ecological values of this watershed; which, in turn, has informed our
investments of over $64 million to protect these critical and unique resources.

Rosemont Mining Proposal Will Adversely and Irreversibly Impact the Cienega Basin
Watershed the County has Protected

Rosemont’s mining proposal will have significant long-term and adverse impacts on the
watershed and riparian systems within the Cienega Basin Watershed, both from the direct
activity of mining where WUS, ephemeral streams and riparian areas will be completed
destroyed. By our estimate, approximately 100 miles of stream channels will be directly
destroyed by the mining activity (see Attachment 3). The 404(b)(1) Alternatives Analysis
relies on a much smaller subset of potentially jurisdictional waters for its analysis. Impacts
to WUS include dredging to obtain “soils” for future reclamation, and excavation and filling
to create the mine. Furthermore, due to the upper watershed location of the mining
activity, there will be long-term and continuing adverse and indirect impacts due to the loss
of surface water flows because of topographical alteration of the upper watershed, various
diversion channels, and interception of groundwater subflows by the mine pit excavation
itself and by dewatering.

These impacts must be fully mitigated by Rosemont in a meaningful, measurable and
verifiable manner.

Colonel Kim Colloton
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US Environmental Protection Agency Region IX November 7, 2013 Letter Expresses Real and Definable Concerns that Have Not Been Factually Disputed

Pima County and the RFCD share many of the same concerns over the mitigation proposal as those expressed by the US Environmental Protection Agency (EPA) in their November 7, 2013 letter. Among the many concerns raised by the EPA was the fact that Rosemont must demonstrate clear compliance with the Clean Water Act, and neither the EIS nor the scanto mitigation proposal contained in the Final Environmental Impact Statement (FEIS) demonstrate such compliance. They failed to quantify certain upstream and downstream impacts and underestimated impacts to groundwater-supported ephemeral and intermittent streams and springs.

During scoping in 2008, Pima County identified the potential for the mine to cause significant degradation of aquatic ecosystems, including Empire Gulch, various springs, Davidson Canyon and upper and lower Cienega Creek. We provided detailed outlines of hydrologic, hydraulic and geomorphic studies needed to assess impacts to the Outstanding Waters of Davidson Canyon, studies that were never conducted and which would have reduced the uncertainties federal and state agencies faced later in their effects analyses.4 We also provided detailed reviews of the mine’s groundwater and surface water models and provided our own groundwater model, which was reviewed by US Geological Survey staff.5

We completely agree with the EPA that the Sonoita Creek and Fullerton Ranch are inappropriate compensatory mitigation for impacts to WUS, principally because neither Fullerton Ranch nor Sonoita Creek are in the same watershed. In 2008, the Corps adopted a watershed approach to mitigation. In 2009, Pima County asked that mitigation be located close to the area of effects, adjacent to other protected land, and protected in perpetuity with legal instruments that secure mineral, as well as water, resources.6 This same letter provided an extensive list of sites located within the watershed that might offer permittee-based mitigation.

5 2008 Groundwater Model; Pima County DEIS Comments; Pima County PAFEIS comments; Pima County Section 404 Comments; Pima County February 17, 2010 Letter to Forest Supervisor Jeanine Derby.
In addition, the Interagency Review Team, of which Pima County is a member, has yet to see or approve 1) an appropriate functional assessment that describes the aquatic resource values associated with impacts and mitigation or 2) an assessment of the relationship between the impacts and the mitigation that is appropriate to the scope and degree of the impacts and which are reasonably enforceable.

Furthermore, neither the Corps nor the Forest Service, as the lead agency, has adequately considered interrelated tribal issues. We agree with the Tohono O’odham Nation that there have been ineffective consultations with Native American communities regarding the impact of the proposal on traditional cultural places, including streams and springs. Given the close locational association of historic properties, archeological sites and traditional cultural places to WUS, any disruption or destruction of these Waters will disproportionately destroy these cultural resources, which are located where the water either is or was. Federal agencies, in their conduct of this process, have failed to provide opportunities for meaningful involvement of tribal communities. The mitigation plan, as currently described, is unlikely to relieve the disproportionality of the impacts to the Tohono O’odham Nation or other consulting tribes.

**Rosemont Proposed Mitigation is Seriously Inadequate**

The Rosemont proposal to mitigate the adverse effects of their direct and indirect impacts on WUS, ephemeral streams and riparian areas, as well as seeps and springs, is substantially inadequate. Rosemont proposes three areas for mitigation credit: 1) the Pantano Dam, including the transfer of 1,122 acre feet of appurtenance surface water rights and the diversion facilities in a nearby groundwater well; 2) Sonoita Creek Ranch; and 3) Davidson Canyon preservation lands. Our comments on each of these proposals appear below.

**Pantano Dam**

While this proposal will have a positive effect on the ecosystem, it will not produce the desired mitigation, primarily because the appurtenant surface water right is not as advertised at 1,122 acre feet; it is more realistically no more than 360 acre feet per year and declining. As part of our review of the Rosemont EIS and concurrent with development of the possible Cienega ILF, Pima County and RFCD have questioned the availability of wet water to the site.  

RFCD have questioned the availability of wet water to the site. Given the specific reductions in flows that have been observed at the site and the trend toward reduced flows due to climate change and other factors such as exempt well drilling, I do not see sufficient wet water to guarantee the long-term success of a project intended to restore lost aquatic functions.

Clearly, an undependable surface water flow of approximately 360 acre feet per year is not the same as a legally possible annual flow of 1,122 acre feet. This element of the Rosemont mitigation proposal fails because it cannot be relied upon to produce the necessary mitigation credits due to an unpredictable and insufficient long-term water supply.

Sonoita Creek Ranch

Rosemont also proposes to mitigate impacts through the purchase of the Sonoita Creek Ranch. This property lies outside the Cienega Basin and violates the County’s desired principle of having mitigation occur in the watershed where the damage occurs. Therefore, the Sonoita Creek Ranch should be completely discounted in providing mitigation for the Rosemont impacts. Sonoita Creek is also located in close proximity to other mines the Forest Service is considering in the Patagonia Mountains. It would be more appropriate for this site to serve to mitigate effects of those mines that are located in the Sonoita Creek Watershed, assuming that Sonoita Creek Ranch would remain unaffected.

Davidson Canyon Preservation and Enhancement

The preservation of small, isolated parcels, even within the Cienega Basin Watershed, will provide little overall mitigation. Well-accepted scientific theory in ecosystem preservation discounts the value of small, isolated conservation parcels for either conserving unique ecosystems or in mitigating for their losses. Rosemont proposes to destroy or deny access to an entire, intact, contiguous

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1 August 14, 2013 PAFEIS Comments; RFCD Letter to Marjorie Blaine, July 31, 2013.
2 Water Resource Trends in the Cienega Creek Natural Preserve, Pima County, August 2013.
Colonel Kim Colloton
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Santa Rita Unit of the Coronado National Forest, greatly diminishing the connected ecosystem value of this portion of the Forest. The loss of these resources, including those subject to wetland regulations, cannot be compensated for by a few small and isolated parcels within the Cienega Basin Watershed. The Davidson Canyon preservation lands do not provide meaningful mitigation by themselves. Those parcels most proximal to Rosemont will be most degraded by the changes in the watershed, and other indirect impacts.

It would appear the lands acquired and/or offered by Rosemont as mitigation are simply lands of acquisition by convenience rather than lands of true mitigation. Rosemont, in their letter of December 13, 2013, laments the lack of available mitigation opportunities in the Barrel Canyon/Davidson Canyon Watershed; and in doing so, demonstrates they both fail to understand the watershed or acknowledge the efforts of both the County and RFCD, as well as the US Bureau of Land Management, in conserving the resources within the Cienega Basin Watershed over the last 30 years. If land are “not available” for Rosemont’s mitigation, it is because previous actions have conserved them; and it is these same conserved lands that are now threatened by Rosemont’s actions.

In summary, all three mitigation strategies are less than adequate compensation. The County respectfully requests that the principle of mitigation in the watershed of impact be adhered to by federal approval agencies because of the County’s significant monetary and time investment in conserving the unique water-based resources of the Cienega Basin Watershed.

Significant lands are still available in the watershed for acquisition and restoration. For instance, staff confirms that Andrada Ranch is still for sale (see Attachment 2). It abuts the Rosemont and Bar V Ranches, including over 16,000 acres of State grazing lease and 271 acres of fee-owned land centered on over 4,000 linear feet of Davidson Canyon upstream of the Outstanding Waters reach. It also includes water rights to a perennial or near-perennial stock pond and a perennial spring located on fee-owned land that has wetland vegetation and restoration potential.

A horse ranch along Gardner Canyon was also for sale during the last year and may still be available. Gardner Canyon is an important tributary to Cienega Creek located just south of the Pima County line.
In addition, there are over 100,000 acres of unconserved State Trust lands within the Cienega Creek Watershed that could be available for mitigation. Pima County has successfully purchased almost 3,000 acres of State Trust land since 2009. In 2012, mining company Freeport McMoRan successfully purchased over 8,000 acres of State Trust land to construct a new tailings pile and mitigate its effects at its Sierrita Mine west of the proposed Rosemont Mine. These purchases demonstrate that the purchase of State Trust land for mitigation is plausible, yet Rosemont has not pursued this option.

**Pantano or Cienega In-lieu Fee Project May Not be the Best Compliance Vehicle for Rosemont**

The RFC, as an in-lieu fee (ILF) provider under an approved agreement with the Corps, has been working to develop a project located in the Cienega Creek Natural Preserve (Pantano Dam) that would improve the conditions of the aquatic resources there in conjunction with acquisitions or funds that would be made available by Rosemont Copper.

A number of outstanding, interrelated issues have arisen from consideration of the Pantano ILF project, as well as the nature of the Rosemont project and the roles of the regulatory agencies, which include the County, RFC, Corps, and the US Fish and Wildlife Service. I would appreciate further discussions with you and your staff on these topics.

1. Many of the Rosemont proposals for the Pantano Dam are tangible actions that can help assure the water supply, but they cannot manufacture water for a stressed watershed. No one has been able to answer the question of whether the planned mitigation is actually possible given the hydrologic reality facing this watershed.

Another essential element of the decision relates to the liability that RFC may have, if, for any reason, the ILF mitigation bank does not produce or sustain the riparian restoration required. Obviously, the County and RFC cannot and will not be held financially liable for Rosemont mitigation miscalculations. Please note that an ILF project here would require approval. This approval has not been granted or even scheduled, as there is no final plan available for consideration.

As you are aware, every compensatory mitigation project has an ecological risk and a cost liability associated with the risk. These risks may be managed by the use of mitigation ratios, financial requirements such as performance bonds, or advanced mitigation. Some
form of financial assurance is an option to manage the risk for compensatory mitigation by
requiring the permittee to provide collateral to the Corps and/or ILF provider. Ultimately, it
is the permittee that must be made responsible. For mining, the potential environmental
impacts are significant; and the temporal lag is long between when the impacts occur and
when compensatory mitigation is deemed successful. Therefore, the ecological risks are
very high. As a potential ILF within an Arizona Mining District, we would be interested in
knowing how other Corps District Offices have handled ILF programs for mining, such as
coal mining in Kentucky, Virginia and West Virginia.

Through the ILF program, I remain committed to ensure that those causing the impacts are
required to pay the full cost of same and are not subsidized in any way by RFCD
taxpayers. Rosemont, not Pima County, must remain financially responsible for assuring
the success of this project.\footnote{Memorandum to the Pima County Board of Supervisors, August 13, 2013.} If this is not possible within the framework of the ILF and the
Corps’ regulatory timeframes, then we can either explore some type of contractual
arrangement for permittee-responsible mitigation on County or RFCD land or abandon the
matter entirely.

At this point, I strongly prefer permittee responsible mitigation under the legal authority of
the Corps.

\textbf{Meaningful Mitigation Relies on a Dependable Water Supply}

It has become clear to me that an independent supply of water is needed to avoid placing
the burden of long-term risks of failure upon Pima County. Additional water supply from
outside the Cienega Basin is needed to assure that sufficient wet water is available in
perpetuity.

Merely pumping wells near the stream would be “robbing Peter to pay Paul” and could
impair the health of the stream and riparian forest above the dam. Other potential sources
of water might include Central Arizona Project water or effluent purchased from the US
Bureau of Reclamation wheeled through the Tucson Water interconnection to Vail or
delivered through an extension of Tucson’s reclaimed line (see Attachment 2).

An additional, independent water supply would also reduce the short-term implementation
risks and potential temporal losses of aquatic resource functions associated with issues
relating to surface water rights. The proposed ILF project depends on water spreading to
generate WUS credits outside the main channel of Cienega Creek. Such water spreading would require a sever-and-transfer, and this process could be delayed or otherwise impaired by others. Also, an earlier priority water right in the ILF project area has recently been identified. The status of this right is not yet resolved.

Another key consideration for Pima County is that all of the area in question along Cienega Creek has been identified as mitigation for our upcoming Section 10(a)(1)(B) permit (Section 10) from the US Fish and Wildlife Service. Unfortunately, the regional habitat conservation planning in Pima County has not been well-integrated into federal evaluations for the Rosemont project. A copy of the Pima County Multi-species Conservation Plan (MSCP) and DEIS was provided to all involved federal agencies for review in late 2012. We are still waiting for the federal agencies to sort out the overlap between the MSCP and ILF programs. If parts of the Cienega Creek Natural Preserve might be rendered ineligible for MSCP species credit by the ILF project, the taxpayers must not bear the cost, and replacement habitat must be acquired.

Also unclear to me is the degree to which the Cienega or Pantano ILF projects might be vulnerable to re-consultation and additional National Environmental Policy Act review due to the premature release of the Rosemont FEIS, which contained very vague descriptions of all of the proposed WUS mitigation projects. Would RFCD’s execution of the Pantano ILF project be subject to additional federal requirements, liabilities or delays because the FEIS and Biological Opinion relied on vague descriptions? These are issues that must be resolved prior to any final Rosemont approvals or permitting.

A Sustainable Mitigation Strategy for Rosemont Impacts and Our View of Measureable, Meaningful and Verifiable Mitigation

I recommend that Rosemont’s CWA Section 404 permit be denied unless Rosemont commits to the following mitigation:

- Purchase and convey the Pantano Dam site to the RFCD;
- Purchase and convey 1,122 acre feet per year of senior surface water rights to the RFCD;
- Purchase and convey the distribution pipeline between the Pantano Dam and the Lago del Oro Golf Course to the RFCD;
- Purchase and convey Water Production Well Registration Number 602949, owned by Vail Water Company, to the RFCD;
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- Construct and convey to the RFCD a reclaimed water extension line from 
Drexel Road at the Pantano Wash approximately 11 miles to the Pantano Dam 
of sufficient size to deliver approximately 750 acre feet per year of reclaimed 
water to the Pantano Dam site;
- Purchase from the Bureau of Reclamation or any other reclaimed water owner 
and deliver approximately 750 acre feet annually of reclaimed water to the 
Pantano Dam site to the RFCD;
- Purchase and convey the Andradea Ranch, consisting of 276 fee-owned acres 
along Davidson Canyon, to the RFCD, or other suitable and targeted 
compensatory mitigation lands as identified in our December 23, 2009 letter to 
Forest Supervisor Jeanine Derby.

Under this mitigation proposal, Rosemont would be performing permittee-responsible 
mitigation and would remain financially responsible for successful mitigation as determined 
by the Corps and concurred with by the RFCD. The RFCD would enter into an appropriate 
operating agreement with the Corps to carry out the mitigation required if such is 
necessary.

The Rosemont compensatory mitigation proposal is inadequate and fails to provide 
measurable and meaningful reduction of impacts because there are more impacts to WUS 
than have been analyzed, and the offsite impacts are connected and profound.

I would like to thank you for taking the time to consider the County and RFCD perspective 
on this issue, and I would be happy to discuss this matter with you in person during your 
upcoming visit to Pima County in January 2014.

Sincerely,

C.H. Huckelberry
County Administrator

CHH/mjk

Attachments
Colonel Kim Colloton
Re: US Environmental Protection Agency Region IX November, 2013 Letter Regarding Its Analysis of the Updated Draft Clean Water Act Section 404 Compensatory Mitigation Proposal for Rosemont Mine, Pima County, Arizona and the December 13, 2013 Rosemont Copper Letter Regarding the Same Subject

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c: The Honorable Ned Norris, Jr., Chairman, Tohono O'odham Nation
   Jared Blumenfeld, Region IX Administrator, US Environmental Protection Agency
   Suzanne Shields, Director, Pima County Regional Flood Control District
   Julia Fonseca, Environmental Planning Manager, Pima County Office of Conservation and Sustainability
Once one of the largest ranches in southern Arizona, the Empire Ranch stretched from the Rincon Mountains south to the edge of the Canelo Hills near Sonoita (approximate extent outlined at left). This land is home to pronghorn antelope and hundreds of other species of fish and wildlife. Parts of the Empire Ranch were sold off beginning in the early 20th century. During the latter half of the century efforts began to conserve ranch land under public ownership. This poster tells a small part of that history.

In 1969 Gulf America Corporation (GAC) bought the Empire Ranch. The early 1970s the planning for the creation of a satellite city of 180,000 people in the Sonoita Valley was well underway.

GULF AMERICA BUYS EMPIRE RANCH

In June 1970 the Empire Ranch plan was heard by the Pima County Planning and Zoning Commission. Over 150 people appeared to protest the plan. The Pima County Board of Supervisors approved a portion of the plan, requiring GAC to substantially develop 5,300 acres before any additional rezoning would be considered.

ANAMAX BUYS EMPIRE RANCH

The early 1970s Gulf America Corporation was facing numerous financial and other problems. In part to cut its losses GAC decided to sell the 35,000 acre Empire Ranch to Anamax Mining Company in 1974 for over $12 million. Anamax bought the ranch for its water rights to develop the Rosemont Mine. However, in the mid-1980s it put the ranch up for sale. The land was advertised as an investment for developers. Some of the uses promoted were ranchettes and investment parcels to be resold to secondary investors and developers.

PIMA COUNTY INTERESTED IN OPEN SPACE

Pima County became interested in buying the ranch for a natural open space corridor between Oracle and the Canelo Hills. It was also concerned with flooding issues as Cienega Creek flows into the Tucson basin. Cienega Creek also contributes natural recharge to Tucson's aquifer.

In 1986, Pima County acquired land along lower Cienega Creek that had been part of the Empire Ranch in the 1880s. In August 1987 Pima County entered an agreement with Anamax to purchase 85,500 acres of additional land with bond money and flood control funds. Protests arose from the use of flood control money. The agreement fell through.

PIMA COUNTY ACQUIRES EMPIRE RANCH

In 1999 the Pima County Board of Supervisors approved a portion of the plan, requiring GAC to substantially develop 5,300 acres before any additional rezoning would be considered. The Pima County Board of Supervisors approved a portion of the plan, requiring GAC to substantially develop 5,300 acres before any additional rezoning would be considered.

BLM ACQUIRES EMPIRE RANCH IN LAND TRADE

In 1988 the BLM signed a formal agreement acquiring the land in a three-way land exchange. Public lands in Tucson (80 acres) and Phoenix (41,000 acres) were traded to the private investment involved in the trade so that the Empire Ranch could be preserved.

In addition, The Nature Conservancy brokered many of the conservation easements on private land near Las Cienegas. Easements (shown in red) are now held by a combination of Pima County, the Bureau of Land Management, Arizona Land and Water Trust, and The Nature Conservancy.

ADDITIONAL LANDS PROTECTED

In 2004 bond funding was used to acquire the Bar V Ranch, Clyne Ranch, and portions of the Sands and Empirita ranches. County ranch lands are shown in red and orange within and adjacent to the Congressionally designated “Sonoita Valley Acquisition Planning District” (black outline).

By Julia Fonseca (Julia.Fonseca@pima.gov), Helen Wilson and Everett Acosta, Pima County, with assistance from Gita Bodner, The Nature Conservancy.

Arizona’s Congressional delegation, Pima County and others approached the Bureau of Land Management (BLM) about acquiring the land. On March 24, 1988 the BLM signed a formal agreement acquiring the land in a three-way land exchange. Public lands in Tucson (80 acres) and Phoenix (41,000 acres) were traded to the private investment involved in the trade so that the Empire Ranch could be preserved.

BLM subsequently acquired additional land and Congress designated a National Conservation Area with provisions for inclusion of state lands.
The information depicted on this display is the result of digital analyses performed on a variety of databases provided and maintained by several governmental agencies. The accuracy of the information presented is limited to the collective accuracy of these databases on the date of the analysis. Pima County Information Technology Department Geographic Information Systems makes no claims regarding the accuracy of the information depicted herein. This product is subject to the GIS Division Disclaimer and Use Restrictions.
Mine Plan of Operation (MPO) in orange at left, Preferred (Barrel) Alternative in pink at right. Mine access road is shown as part of the footprint for both. Figure provided by Pima County IT.

Delineation of stream centerlines based on stereo-photographs suggests that many headwaters streams were not analyzed in the Application, nor delineated by WestLand Resources as potentially jurisdictional. Over 100 miles of streams would be directly affected by the Mine Plan of Operations, (shown at left). An equal number of stream-miles would be affected by the Forest’s Preferred Alternative (Barrel), shown at right. By contrast, Westland’s preliminary JD predicted only 36 channel miles of impact from the MPO and 34 channel miles of impact from the Barrel alternative.

The permit application also appears to greatly underestimate the widths of WOUS. An estimate of the area of Waters of the US (Waters) based on the limits of the 10-yr floodplains yielded 116 acres which is approximately three times larger than the 38.6 acre estimate provided in the permit application. In Pima County, the limits of the 10-yr floodplain are often used as an approximation for the limits of the ordinary high water mark. The analysis described in Appendix D of our comments shows that this criterion results in much higher acreage than those in the permit application and DEIS. Furthermore, the analysis in Appendix D did not estimate 10-yr floodplain areas for the tributary watersheds mentioned above, so the area of the 10-yr floodplains is actually greater than the 116 acres calculated.

In addition to the lack of documentation on the establishment of jurisdictional limits to determine impacts to Waters, these are preliminary JDs. As such, for the purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected in any way by the permitted activity on the site as if they are jurisdictional waters of the U.S.

In general, Regulatory Guidance Letter 08-02, states that an approved JDs should be used to support individual permit application. We requested that the Corps develop and use approved JDs. This is warranted because of the scope of the proposed mining operation and environmental impacts and the likelihood that the Application grossly underestimates potential impacts to Waters.