# Terry Rambler, Chairman, San Carlos Apache Tribe Testimony before the House Committee on Natural Resources Subcommittee on Energy and Mineral Resources Legislative Hearing on H.R. 687 Southeast Arizona Land Exchange and Conservation Act of 2013

My name is Terry Rambler. I am the Chairman of the San Carlos Apache Tribe ("Tribe"), representing 15,000 tribal members. The San Carlos Apache Reservation ("Reservation") is located within part of our aboriginal territory, and spans 1.8 million acres in southeastern Arizona. I am also President of the Inter Tribal Council of Arizona ("ITCA"), a non-profit organization representing 20 federally recognized Indian tribes. Thank you for the opportunity to testify about our views on H.R. 687, the Southeast Arizona Land Exchange and Conservation Act of 2013. On behalf of the San Carlos Apache Tribe and ITCA, we strongly oppose H.R. 687 and respectfully urge Members of the Subcommittee to oppose this bill for the reasons set forth below.

#### Summary of Objections to H.R. 687

H.R. 687 would direct the Secretary of Agriculture to convey 2,422 acres of U.S. Forest Service lands in an area called Oak Flat and the copper ore body underneath it into the private ownership of Resolution Copper Mining, LLC ("Resolution Copper" or "Resolution") – a subsidiary of foreign mining giants Rio Tinto (United Kingdom) and BHP Billiton, Ltd. (Australia) for block cave mining. The bill would require this transfer of the Oak Flat area to Resolution Copper within *one* year of enactment.

In the decade since this project has been in development, Resolution Copper has consistently refused to provide details regarding the environmental and economic impacts of the project to the local community and region. H.R. 687 would give the Oak Flat area to Resolution Copper for a bare fraction of its actual value. Once the land is privatized under H.R. 687, federal laws and policies that currently protect the area and tribal rights would no longer apply.

As details about the impacts of H.R. 687 have emerged, public opposition has grown and is diverse. Joining us today are local officials representing the Town of Superior and the Queen Valley Homeowner's Association. In addition, the City of Globe recently tabled its support for this project. These communities located near the Oak Flat area have either expressed opposition to H.R. 687 or serious concerns about it. Further, many tribes and tribal organizations nationwide oppose the bill because it would transfer federal land encompassing a known tribal sacred area to a mining company whose mining activities will ultimately destroy the area and circumvent government-to-government consultation requirements with Indian tribes. Tribal organizations opposing this bill include the National Congress of American Indians, the Inter Tribal Council of Nevada, the United South and Eastern Tribes, Midwest Alliance of Sovereign Tribes, the Great Plains Tribal Chairman's Association, the Affiliated Tribes of Northwest Indians, the Eight Northern Pueblos Council, the All Indian Pueblo Council, and many other tribes and tribal organizations. Other groups that oppose this bill include the Association of Retired Miners, the Arizona Mining Reform Coalition, the Sierra Club, the Audubon Society, and others.

Our opposition to H.R. 687 is based upon the following points: (1) the bill would desecrate and destroy an area of religious and sacred significance to the Apache and Yavapai people, which conflicts with federal laws and policies governing meaningful consultation with Indian tribes and protection and preservation of sacred sites; (2) the bill mandates, in direct violation of NEPA, the transfer of the Oak Flat area to Resolution Copper without first informing the public about the adverse impacts on the quality and quantity of the region's precious water supply, the environment, and the potential health and safety risks to the public; and (3) the bill constitutes a multi-billion dollar giveaway to a foreign-owned mining company that is partnering with the country of Iran on a uranium mine in Namibia. Simply put, the American public cannot afford this deal.

## H.R. 687 Would Result in Desecration and Destruction of a Native American Religious and Sacred Site

The 2,422 acres of lands to be conveyed pursuant to H.R. 687 are located in the Tonto National Forest and include the 740 acres of the Oak Flat Withdrawal where the Oak Flat Campground is located and the surrounding area (collectively referred to as the "Oak Flat area"). The San Carlos Apache Reservation is bordered on the west by the Tonto National Forest. The Oak Flat area is 15 miles from our Reservation. The Forest and the Oak Flat area are part of our and other Western Apaches' aboriginal lands and it has always played an essential role in the Apache religion, traditions, and culture. In the late 1800's, the U.S. Army forcibly removed Apaches from our lands, including the Oak Flat area, to the San Carlos Apache Reservation. We were made prisoners of war there until the early 1900's. Our people lived, prayed, and died in the Oak Flat area. At least eight Apache Clans and two Western Apache Bands document their history in the area. Since time immemorial, Apache religious ceremonies and traditional practices have been held at Oak Flat. Article 11 of the Apache Treaty of 1852, requires the United States to "so legislate and act to secure the permanent prosperity and happiness" of the Apache people. Clearly, H.R. 687 fails to live up to this promise. The Oak Flat area, as well as other nearby locations, are eligible for inclusion in, and protection under, the National Historic Preservation Act of 1966, as well as many other laws, executive orders and policies.

Today, the Oak Flat area continues to play a vital role in Apache ceremonies, religion, tradition, and culture. In Apache, the Oak Flat area is *Chich'il Bildagoteel* (a "Flat with Acorn Trees"). The Oak Flat area is a place filled with power – a place where Apaches today go for prayer, to conduct ceremonial dances such as the sunrise dance that celebrates a young woman's coming of age, to gather medicines and ceremonial items, and to seek and obtain peace and personal cleansing. The Oak Flat area and everything in it belongs to powerful *Diyin*, or Medicine Men, and is the home of a particular kind of *Gaan*, which are mighty Mountain Spirits and Holy Beings on whom we Apaches depend for our well-being.

Apache Elders tell us that mining on the Oak Flat area will adversely impact the integrity of the area as a holy and religious place. Mining the Oak Flat area will desecrate the *Gaan*'s home and would diminish the power of the place. Without the power of *Gaan*, the Apache people cannot conduct our ceremonies. We become vulnerable to a variety of illnesses and our spiritual existence is threatened. There are no human actions or steps that could make this place whole again or restore it once lost.

The unique nature of the Oak Flat area has long been recognized and not just by the Apache. The Oak Flat Withdrawal was set aside from appropriation under the mining laws by President Eisenhower and reaffirmed by President Nixon.<sup>1</sup> U.S. Department of Agriculture (USDA) Secretary Tom Vilsack has acknowledged the Oak Flat area as a "special place" that should be protected from harm "for future generations." Protecting the Oak Flat area as a sacred site is consistent with the articles of the United Nations Declaration on the Rights of Indigenous Peoples, which was adopted by the U.N. General Assembly in September of 2007, and for which President Obama announced U.S. support in December of 2012.<sup>2</sup> The Obama Administration tied its support of the Declaration to the current federal policies of government-to-government consultations with Indian tribes and maintaining cultures and traditions of Native Peoples.<sup>3</sup>

The mining project proposed by Resolution Copper will destroy the Oak Flat area. The block cave mining technique will permanently ruin the surface of the area. As explained below, the water required for the project will forever alter the medicinal plants and trees in the area upon which our people rely for healing and prayer. The ore body that Resolution seeks lies 4,500 to 7,000 feet beneath the Oak Flat area. Resolution admits that the ore body is "technologically difficult" to mine, that it may take up to a decade to develop this technology, and that temperatures as high as 175 degrees Fahrenheit will be encountered.<sup>4</sup> It also acknowledges that the land above the ore body, the Oak Flat Campground, will subside and cave in.<sup>5</sup> The mine will destroy the nature of the land, its ecology, and its sacred powers forever. For my constituents, this reason alone is enough to oppose H.R. 687.

# H.R. 687 Circumvents Federal Laws and Policies Designed to Protect Native American Religious and Sacred Sites

Indian tribes, including the San Carlos Apache Tribe, ceded and had taken from us hundreds of millions of acres of tribal homelands to help build this great nation. The United States has acknowledged that, despite the transfer in title of these lands to the U.S., it retained an obligation to accommodate access to and ceremonial use of religious and sacred sites by Native Americans. This solemn obligation is codified in a number of federal laws, regulations, and policies. A core aspect of each of these federal enactments is the requirement that the U.S. must conduct *meaningful* government-to-government consultation with affected Indian tribes *prior* to making a decision that will impact a Native sacred area.

Executive Order 13175 on tribal consultation requires federal agencies to conduct consultations with tribes when proposed legislation has substantial direct effects on one or more Indian tribes. USDA Secretary Vilsack acknowledged "it is important that [the Southeast Arizona" of the conduct consultations with tribes when proposed legislation has substantial direct effects on one or more Indian tribes.

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<sup>&</sup>lt;sup>1</sup> Public Land Orders 1229 (1955) and 5132 (1971).

<sup>&</sup>lt;sup>2</sup> See http://www.ohchr.org/english/issues/indigenous/declaration.htm.

<sup>&</sup>lt;sup>3</sup> Available at http://www.state.gov/s/tribalconsultation/declaration/index.htm.

<sup>&</sup>lt;sup>4</sup> See S. Hrg. 110-572, p. 44 (July 9, 2008)(Hearing before the Subcommittee on Public Lands and Forests of the Committee on Energy and Natural Resources, United States Senate, S. 3157 110<sup>th</sup> Cong.).

<sup>&</sup>lt;sup>5</sup> See Resolution Copper website available at http://www.resolutioncopper.com/sdr/2011/environment.

<sup>&</sup>lt;sup>6</sup> See Executive Order 13007: Indian Sacred Sites (May 24, 1996); the Native American Graves Protection and Repatriation Act, 25 U.S.C. 3001 et seq.; the American Indian Religious Freedom Act, 42 U.S.C. 1996; the National Historic Preservation Act, 16 U.S.C. 470 et seq.; the Religious Freedom Restoration Act, 42 U.S.C. 2000bb et seq.; and Executive Order 13175: Consultation with Indian Tribal Governments (Nov. 6, 2000).

<sup>&</sup>lt;sup>7</sup> 59 Fed. Reg. 22951 (April 29, 1994).

Land Exchange] engage in a process of formal tribal consultation to ensure both tribal participation and the protection of this site." President Obama stated in his 2009 Memorandum affirming and requiring agency implementation of E.O. 13175, that "[h]istory has shown that failure to include the voices of tribal officials in formulating policy affecting their tribal communities has all too often led to undesirable and, at times, devastating and tragic results."

To strengthen federal polices pertaining to Indian tribes, the Obama Administration recently acted to improve protections of Native religions and sacred areas. In December of 2012, the USDA released a report titled, "USDA and Forest Service: Sacred Sites Policy Review and Recommendations," which provides a framework for how and why the United States, and specifically USDA and the Forest Service, is legally obligated to protect and preserve sacred areas located on federal lands. The Report acknowledges, "Like almost all public and private lands in the United States, all or part of every national forest is carved out of the ancestral lands of American Indian and Alaska Native people." It affirms and lists the Administration's federal legal obligations to protect and provide access to Indian sacred sites and to consult with tribes on any federal actions that will impact sacred sites.

On December 5, 2012, five federal agencies, including USDA, the Departments of the Interior, Defense, Energy, and the Advisory Council on Historic Preservation entered into a MOU to develop guidance for the management and treatment of Native sacred areas, to develop a public outreach plan to acknowledge the importance of maintaining the integrity of Native sacred areas and to protect and preserve such sites, and to establish practices to foster the collaborative stewardship of sacred sites, among other goals. On March 5, 2013, these federal agencies adopted an action plan to implement the MOU, which entails working to "improve the protection of and tribal access to Indian sacred sites, in accordance with Executive Order 13007 [on Indian Sacred Sites] and the MOU, through enhanced and improved interdepartmental coordination and collaboration and through consultation with Indian tribes."

H.R. 687 will make an end run around these legal and policy obligations by transferring the Oak Flat area to Resolution Copper in private ownership. Once the lands are in private hands, the obligations to protect the Tribe's religious and sacred areas and accommodate tribal access will have no force of law. Section 4(c) of the bill requires tribal consultation, but earlier provisions of the bill mandate that the land be transferred regardless of the outcome of that consultation, rendering the act of consultation a mere formality with no meaningful effect.

## H.R. 687 Authorizes the Project to Move Forward without Informing the Public of the Adverse Impacts to the Region's Water, Environment, and Health and Human Safety

#### Bill Circumvents NEPA and Public Interest Requirements

H.R. 687 undermines the National Environmental Policy Act (NEPA), which requires an analysis of potential impacts, including providing public notice and an opportunity to comment, *before* federal actions are taken. The bill fails to require an environmental review, including consideration of mitigation measures, of the mining project before the land exchange is

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<sup>&</sup>lt;sup>8</sup> See Letter from USDA Secretary Vilsack to Chairman of the Senate Energy and Natural Resources Committee, Subcommittee on Public Lands and Forests (July 13, 2009).

<sup>&</sup>lt;sup>9</sup> 74 Fed. Reg. 57881 (Nov. 5, 2009).

completed. The bill mandates that USDA convey the lands to Resolution Copper within one year of enactment. Once the lands are transferred to Resolution Copper, NEPA review will not have any real impact because the land would already be in private ownership. Because the bill is a mandatory transfer, the Secretary of Agriculture has no discretionary authority to determine under the Federal Land Policy Management Act (FLPMA) or other laws whether the exchange is a bad deal for the American taxpayer, the local residents, and the local economy, which would be the case if an administrative transfer were required.

In May 2007, the Forest Service published its "Technical Guide to Managing Groundwater Resources." The Technical Guide examined the Forest Service's compliance with FLPMA and NEPA. The Guide references the Service's experience with the Carlota Mine also located in the Tonto National Forest. It was determined through the evaluative procedures of FLPMA and NEPA that Carlota Mine's groundwater pumping would impact the Tonto Forest's surface waters and the Service's appropriated water rights. The Carlota Mine was required to mitigate the impacts of its groundwater demands for the mining operation before the mine was permitted. The Carlota project illustrates the importance of NEPA review *before* this land exchange is completed. The surface waters and aquifers that were affected by the Carlota Mine are the same surface waters and aquifers that will be impacted by Resolution Copper's mine. Under H.R. 687, Resolution Copper will be able to evade this type of analysis and can ignore mitigation conditions.

Resolution Copper has no intention of sharing any relevant information with the public prior to taking the lands in private ownership. Resolution's Jon Cherry told the Senate Environment and Natural Resources Committee in February of 2012 that Resolution Copper "will be in a position to file our Mine Plan of Operations (MPO) which will begin the NEPA EIS process over the entire project area including the area of the subject exchange" by the "second quarter of 2012." To our knowledge, Resolution Copper has not fulfilled this promise.

Secretary prior to commencing production in commercial quantities. There are no requirements to guarantee that the MPO will contain a complete description of mining activities and measures Resolution Copper will take to protect environmental and cultural resources, which are normally required by law. Under Resolution Copper's proposed timeline, the MPO could take close to a decade. Regarding actual environmental review, Section 4(j)(2) of the bill requires only that the Secretary, within 3 years of receiving Resolution Copper's MPO, prepare an environmental review that must be conducted under the framework of subparagraph 4322(2) of NEPA. Again, this review will be conducted long *after* the lands are exchanged and in private ownership.

Section 4(h) of the bill makes clear that federal laws will not limit Resolution Copper's activities on the land after the mandated exchange. It provides that the lands conveyed "shall be available to Resolution Copper for mining and related activities subject to and in accordance

United States Senate, 112th Congress).

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Section 4(i) of the bill states, "the land exchange directed by this Act *shall be* consummated not later than one year after the date of enactment of this Act." (Emphasis added).

See Technical Guide to Managing Groundwater Resources, U.S. Forest Service, FS-88, pp. 20-22 (May 2007).

See Technical Guide to Managing Groundwater Resources, U.S. Forest Service, FS-88, pp. 20-22 (May 2007).
 See S. Hrg. 112–486, pp. 28, 29 (Feb. 9, 2012) (Hearing Before the Committee on Energy and Natural Resources,

with applicable Federal, State, and local laws pertaining to mining and related activities on land in private ownership." As a result, the Secretary will have no discretion to exercise meaningful authority over the MPO or mining activities on private land after the exchange absent a federal nexus. There is no requirement in the bill for the Secretary to examine the direct, indirect and cumulative impacts of exploratory activities, pre-feasibility, feasibility operations, or mine facility construction that will be conducted after the exchange.

Further, upon enactment of H.R. 687, Resolution Copper will almost immediately begin activities that will harm our sacred area and the region's water supply, again without any public disclosures of information. Section 4(f) mandates that the Secretary "shall" provide Resolution with a special use permit within 30 days of enactment to engage in mineral exploration activities at Oak Flat Withdrawal and, within 90 days, the Secretary is required to allow mineral exploration. The integrity of Oak Flat could be substantially harmed by exploratory activities before the limited environmental review requirements in Sec. 4(j)(2) are triggered. The limited environmental review of the MPO will have little or no benefit. The Secretary lacks any authority to propose alternatives to interim activities that might be necessary to protect water resources, landscape, plants, ecosystems or the integrity of Oak Flat as a traditional cultural property and sacred site. The immediate exploration of Oak Flat contemplated by Section 4(j) constitutes an "irretrievable commitment of resources" in contravention of NEPA.

Joel Holtrop, Deputy Chief of the National Forest Service, stated that a MPO containing subsurface information is "essential in order to assess environmental impacts, including hydrological conditions, subsidence, and other related issues." Similar concerns were expressed by the Forest Service Associate Chief Mary Wagner who noted that the Service could not support the bill given that it "limited the discretion" of the Service to develop a reasonable range of alternatives and lacked the opportunity for public comment on the proposal. Likewise, USDA Secretary Vilsack stated:

The purpose of a requirement that the agency prepare the EIS after the exchange, when the land is in private ownership, is unclear because *the bill provides the agency with no discretion to exercise after completing the EIS*. If the objective of the environmental analysis is to ascertain the impacts of the potential commercial mineral production on the parcel to be exchanged, then the analysis should be prepared before an exchange, not afterwards, and only if the agency retains the discretion to apply what it learns in the EIS to its decision about the exchange. *It seems completion of the exchange prior to the EIS would negate the utility of the EIS.* <sup>15</sup>

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<sup>&</sup>lt;sup>13</sup> See S. HRG. 111–65 (June 17, 2009) p. 41, Hearing before the Subcommittee on Public Lands and Forests of the Committee on Energy and Natural Resources, United States Senate (S. 409 111<sup>th</sup> Cong.).

<sup>&</sup>lt;sup>14</sup> See S. HRG. 112–486 (June 14, 2011) p. 16, Hearing before the Committee on Energy and Natural Resources, United States Senate (H.R. 1904 & S. 409 112<sup>th</sup> Cong.).

<sup>&</sup>lt;sup>15</sup> See Letter from USDA Secretary Vilsack to Chairman of the Senate Energy and Natural Resources Committee, Subcommittee on Public Lands and Forests (July 13, 2009)(emphasis added).

Further, H.R. 687 does not allow for a supplemental EIS document if additional review is needed to examine the direct, indirect and cumulative impacts of mining activities by Resolution. Sec. 4(j)(2) makes clear that the Secretary may only use the single environmental review document prepared within 3 years of the submission of a MPO as the basis for all "decisions under applicable Federal laws, rules and regulations regarding any Federal actions or authorizations related to the proposed mine or plan of operations." (Emphasis added).

Again, the bill conflicts with the purposes of NEPA and the bill fails to vest any real discretion in the Secretary to address the many concerns presented by the mining operation proposed for Oak Flat. It simply does not make sense for this bill to limit the Secretary's discretion, undermine the NEPA process, and ignore the environmental and tribal concerns related to the mining project.

Moreover, the potential for negative economic impacts to the local economy through a loss of recreation and tourism could be substantial. In 2009, detailed direct travel impact estimated for Pinal County totaled \$421 million dollars, with over \$16 million spent by those visiting the nearby campground areas. 16 Many of these dollars were spent in and around the area of this proposed mine.

If enacted, H.R. 687 will result in disastrous consequences, which Resolution seeks to downplay and conceal given that the bill requires no cost-benefit analysis of the potential environmental impacts. Resolution would be able to mine copper without environmental permitting, cultural protections or financial assurances necessary for responsible stewardship. As a limited liability corporation, the Company could simply walk away from potentially billions of dollars of environmental and infrastructure damages to this sacred area.

#### Southeast Arizona's Water Supply Cannot Sustain this Project

Resolution Copper has not been transparent with the public or its neighbors in the Oak Flat area. In 2009, Resolution explained that it was purchasing water and reclaiming contaminated waters in order "to build the needed water supplies for mining activities that are a full decade or more away." Resolution claimed to be "managing water by taking into account the needs of both current and future users of this precious resource." Resolution claimed that it had purchased and "banked" over 120,000 acre feet of Central Arizona Project ("CAP") water from 2006 through 2008 with Irrigation Districts near Phoenix, enough to operate the mine for six years at a projected use of 20,000 acre feet per year. 18 Resolution further reported in 2008 that it "installed several hydrology wells to assist in developing models that will determine if mining may affect the regional aquifers, and ... what mitigation options are viable."<sup>19</sup>

H.R. 687 does not require Resolution Copper to perform or disclose its studies of the impacts on the regional water supply and hydrology. Repeated requests for an independent agency, such as the U.S. Geological Survey ("USGS"), to conduct studies have been ignored or

<sup>&</sup>lt;sup>16</sup> See Arizona Travel Impacts 1998-2009p, July 2010 Report, Arizona Office of Tourism, Phoenix, Arizona.

<sup>&</sup>lt;sup>17</sup> Previously on Resolution Copper webpage, now missing file:

http://www.resolutioncopper.com/res/environment/ddnav.css

<sup>&</sup>lt;sup>19</sup> See Resolution Copper webpage.

opposed. Resolution Copper's failure to disclose critical information about the impacts on the region's water has united a diverse group that opposes H.R. 687.

Our neighbors to the west in Queen Valley have already felt Resolution's insatiable thirst for water. Since 2008, Resolution has been pumping groundwater to dewater parts of the decommissioned Magma Mine. Water levels in the Magma shaft have declined nearly 2,000 feet and water levels in the surrounding aquifer will inevitably decline as well. The Queen Valley Homeowners Association reported that since Resolution began pumping 900,000 gallons of water a day, the community's water supply fell to a historic low requiring water rationing for the community golf course. The Association passed a resolution opposing the mine.

According to USGS records, since 2008, the average streamflow in Queen Creek (downstream from the mine site) has been less than half the average streamflow for 2001-2007 before Resolution began dewatering at Magma Mine. Resolution's dewatering efforts removes far less water than the mine sought, though H.R. 687 will require (approximately 920 acre feet per year compared to the mine's eventual need for 20,000 acre feet per year). The simple act of dewatering will have negative effects on regional water supplies. If Resolution depends on even more groundwater for its mining operations, the negative impacts will grow.

In 2009, Senator Bingaman questioned the Forest Service about the impacts of the mine on the local water supplies and quality. Deputy Chief Holtrop responded:

At this time the U.S. Forest Service does not have an understanding of the impacts of the proposed mine will have on local or regional water supplies, water quality, or possible dewatering of the area. No studies or assessments of the water supplies have been conducted. That is information which could be obtained by the Forest Service with NEPA analysis *before* the exchange. A NEPA analysis after the exchange would not allow the Forest Service to recommend alternatives since the exchanged parcel would already be in private ownership. Data and analyses in the possession of Resolution Copper Mining would be of assistance to the Forest Service in evaluating the impacts of the proposed mine on local and regional water supplies and quality.<sup>20</sup>

In order to better inform the public of the potential impacts, L. Everett & Associates (LEA), an internationally recognized environmental consulting firm made up of hydrogeologists, engineers, and geologists, conducted a review recently of potential environmental impacts to the region that would be caused by H.R. 687. The following excerpts from the review clearly rebuff Resolution Copper's water claims:

"[I]t is highly speculative that CAP water will be a reliable source for Resolution over the decades-long lifetime of the mine. In fact, Resolution correctly admitted that 'excess CAP water will not always be available for purchase and other sources will be needed.' It seems apparent that Resolution will need to rely on

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<sup>&</sup>lt;sup>20</sup> See S. Hrg. 111–65, p. 42 (June 17, 2009)(Hearing before the Subcommittee on Public Lands and Forests of the Committee on Energy and Natural Resources, United States Senate, S. 409 111<sup>th</sup> Cong.)(emphasis original).

local groundwater resources to provide a significant percentage of Resolution's water supply if it is to be a viable project.

"It is virtually impossible for Resolution to meet even a fraction of its water needs from local groundwater in a sustainable manner: the amount of water needed is just too vast for the natural processes that recharge the aquifer in this arid region of Arizona to replenish the needed withdrawals.

"Because groundwater and surface water systems are intimately interrelated, pumping too much groundwater will have a negative impact on nearby surface water resources because lowering the water table can starve the local streams of recharge from the aquifer. This is a serious issue that is very difficult if not impossible to mitigate. For example, the nearby Carlota Mine uses much less water than the proposed Resolution Mine (approximately 1,000 acre feet per year). In a 25-day pump test at the Carlota Mine, stream flow in Haunted Canyon (2,300 feet from the nearest well) declined from 45 gallons per minute to 5 gallons per minute, thus threatening the sensitive riparian habitat."<sup>21</sup>

Following its assessment of the dewatering process that will be required to operate Resolution's mine, LEA added, "Given the depth of the ore body and the need to dewater the mine workings that are deep below the water table, Resolution will have to aggressively pump groundwater from the aquifer. The effect of this pumping will be felt far beyond the boundaries of the mine."

Throughout the mining process, water will migrate to the vacant ore body and mining tunnels. For example, Resolution estimates that inflows to the existing workings at Magma Mine are 300 million gallons per year. If mining production on this new project is authorized, the mine dewatering will deplete many billions of gallons of water from surface waters and groundwater throughout the region, resulting in the loss of important seeps, springs, and streams and depleting the perennial pools in *Gaan* (Devil's) Canyon and streamflows in Queen Creek and other surface waters.

The alteration of subsurface and surface geological structures because of block caving and the admitted collapse of the land surface will alter the natural state of the aquifers and surface drainage of the watersheds forever. Resolution has refused to publish the potential impacts on the water supplies of the region despite the fact that this legislation has been introduced in the Congress over the past eight years. Instead, Resolution has simply claimed that it is urgent for Congress to pass this land exchange.

#### Additional Damage to the Southeast Arizona Environment

While water is a paramount concern for the opponents of H.R. 687, it is not the only concern. Resolution Copper has failed to provide data pertaining to its mining and post-mining subsidence analysis, water quality contamination analysis (including acid mine drainage and subsequent pollution), air quality compliance, tailings and overburden storage and placement.

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<sup>&</sup>lt;sup>21</sup> Letter from LEA Principal Geologist, James T. Wells, PhD, PG, to San Carlos Apache Tribe, Chairman Terry Rambler (March 18, 2013)(Attached to this testimony)(hereinafter "LEA Analysis").

On March 15, 2013, the local Town of Superior adopted a resolution opposing H.R. 687. The nearby City of Globe has tabled a proposed resolution to support the bill until its questions about the bill have been satisfactorily answered about the impacts of this mine. This bill touts jobs for the local economy. But local community leaders rightfully ask: "What good are jobs if our communities are environmental disaster areas lacking water to support our citizens?"

It is common knowledge that acid mine drainage leaking into groundwater and surface water is a widespread consequence of copper mining. Acid-generating mines pollute surface water and groundwater requiring expensive reclamation and long-term water treatment. The water Resolution is pumping from the Magma Mine shaft is contaminated with heavy metals. That water is being treated at Resolution's water treatment facility. In order for that treated water to be reclaimed and re-used, it has to be diluted with clean CAP before being transported for use on crops to the Irrigation Districts.

Instead, Resolution and its foreign corporate parents avoid the true costs of environmental compliance through this land exchange. Once these public lands are conveyed, under the permissive mining and reclamation laws of the State of Arizona, Resolution will probably not be required to post a cash bond to underwrite either the cost of remediation during its mining operations or for clean-up upon mine closure. Typically, only self-bonding or *corporate guarantees* are all that is required. This is woefully insufficient to protect the public from bearing the potentially astronomic costs of clean-up resulting from a limited liability company's massive mining operations. As stated earlier, Resolution can simply walk away from damage to the Oak Flat area. As a result, American taxpayers would be left without any revenue and will be on the hook for the future cost of any environmental remediation.

There are too many environmental questions that Resolution Copper has failed to answer. This land exchange allows Resolution to avoid responding to these questions that federal law otherwise requires every other company in America to answer. The Subcommittee should ask why Resolution deserves special treatment?

#### H.R. 687 is a Massive Giveaway of Taxpayer Resources to Foreign, Special Interests

At a time when all Americans are being asked to tighten our belts, H.R. 687 will result in a giveaway of American wealth to a foreign-owned mining company. The appraisal requirements of H.R. 687 are unique to this land transfer and do not adequately ensure that the public will receive fair value. Since the bill does not afford the federal agencies the opportunity to perform a substantive economic evaluation of the lands along with the copper and other minerals to be exchanged to Resolution, it is impossible for the Congressional Budget Office and/or Office of Management and Budget to effectively evaluate H.R. 687. The public interest requires that a complete and fully informed appraisal and equalization of values be performed *prior to* Congressional passage of H.R. 687, *not after*. Resolution Copper has variously estimated the mineral wealth in the lands ranging from \$100 to \$200 billion. Resolution's *self evaluation* of the ore body underlying Oak Flat is orders of magnitude greater in value than that of the non-federal parcels offered in exchange to the public.

A significant amount of information is required for a meaningful and accurate appraisal. Under the Uniform Appraisal Standards for Federal Land Acquisition (UASFLA) requirements, a detailed mining plan is necessary to properly assess the value of the exchanged land. UASFLA requires that production level estimates should be supported by documentation regarding production levels achieved in similar operations. However, it is unknown at this time what Resolution Copper's production estimates are since mining plan data has not been forthcoming.

UASFLA royalty income approach also requires several economic predictions including a cash-flow projection of incomes and expenses over the life-span of the project and a determination of the Net Present Value (NPV), including the NPV of the profit stream, based on a discount factor.

Deputy Chief Holtrop and BLM Deputy Director Luke Johnson informed the Subcommittee on National Parks, Forests and Public Lands on an earlier version of this bill that the completion of the exchange within one year (as required by H.R. 687 Section 4(i)) was insufficient time to complete the required appraisals.<sup>22</sup> Specifically, Mr. Johnson stated:

Based on our experience with exchanges, we do not believe that this is sufficient time for the completion and review of a mineral report, completion and review of the appraisals, and final verification and preparation of title documents. Preparation of a mineral report is a crucial first step toward an appraisal of the Federal parcel because the report provides the foundation for an appraisal where the land is underlain by a mineral deposit. Accordingly, adequate information for the mineral report is essential.

Given the evaluation standards prescribed by the UASFLA, coupled with the lack of factual data from Resolution, the American taxpayer will once again be short-changed.

#### Resolution Copper's Corporate Parents Partner with Iran and China

Resolution is not deserving of the special treatment given it under H.R. 687. The Company is a subsidiary of Rio Tinto (55% majority owner)(UK headquarter/Australian offices) and BHP Billiton (45% shareholder)(Australia headquarter/UK offices). Rio Tinto is a partner with Iran in the Rössing *uranium* mine in Namibia.

Rio Tinto currently owns a majority stake in the Rössing mine; while, the Iran Foreign Investment Company (IFIC) owns a 15% stake in the same mine. The IFIC is wholly owned by the Iranian government. United Against Nuclear Iran (UANI) raised concerns about Rio Tinto partnership and called on Rio Tinto and Rössing to sever ties with the Iranian government. In a letter to the Chairman of Rio Tinto, UANI President, Ambassador Mark D. Wallace, wrote:

Thank you for the letter of November 8, 2010 from the Rio Tinto Group. While your letter attempts to address some of the concerns ... the largest issue - the current Iranian government's 15 percent stake - remains outstanding and is of serious concern to UANI and many within the international community.... You

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<sup>&</sup>lt;sup>22</sup> See S.110-52 (Nov. 1, 2007), pp. 4, 5, 8 (Legislative Hearing before the Subcommittee on National Parks, Forests and Public Lands of the Committee on Natural Resources U.S. House Of Representatives, 112<sup>th</sup> Congress).

dismiss the concerns raised by UANI because the government of Iran initially acquired its share in the Rössing mine in 1975.... This fact is not relevant in 2011 when the government that has been profiting from the mine for over three decades is one that is pursuing an illegal nuclear weapons program, [and] sponsoring terrorism in the region...."

Letter from Former U.S. Ambassador and UANI CEO Mark Wallace to Rio Tinto Group Chairman Jan du Plessis (Jan. 13, 2011).

In addition, there are no guarantees that the copper mined pursuant to H.R. 687 will even be processed or used in the U.S. Chinalco, owned by the Chinese government, holds a 9% stake in the Rio Tinto Group. Nothing in the bill requires Resolution Copper, Rio Tinto's subsidiary, to process or sell the copper to U.S. companies or even use U.S. resources to mine the copper.

Based upon the history of parent company Rio Tinto's business relations with Iran and China and in light of the U.S. and international sanctions against Iran, it is not in America's interests to trade valuable federal land to this foreign-owned mining company.

#### **Speculative Economic Benefits**

Without substantiation, Resolution has touted local job creation as the primary justification for this land exchange. Resolution's jobs claims have varied widely over the years that this project has been proposed. Because Resolution is not required to publicly disclose a MPO before the land transfer, Resolution's jobs claims are speculative at best. Resolution takes pride in the fact that they are building the mine of the future. Resolution's Vice President stated, "Our grandfathers wouldn't recognize the mines of today." The proposed mine, under H.R. 687, will be highly automated and the likely actual jobs produced will come in far below the speculative figures promised. In addition, Resolution has opposed all efforts to amend the bill to require that: (1) the project headquarters to be located in Southeast Arizona; (2) local Arizonans be considered first for any job opportunities that may result from the project; and (3) the ore is processed and used in the U.S. – and not in China or another foreign nation. Further, Resolution has admitted that it will take at least 10 years to develop technology to access the ore body given that it 1-mile beneath the surface of the earth where it is a temperature of 175 degrees.

#### **Conclusion**

In 1871, the U.S. established our Reservation. Since then, the United States diminished our Reservation several times due to the discovery of silver, copper, coal, water and other minerals and natural resources. Our burial sites, living areas, and farmlands on our Reservation were flooded for a federal dam for the benefit of others. Based upon this history and for the reasons stated above, the Tribe strongly opposes H. R. 687 or any other conveyance of our tribal ancestral lands in the Oak Flat area to Resolution Copper for mining that would permanently destroy this sacred site. Once done, this action cannot be undone.

#### March 18, 2013

#### Tribes and Tribal Orgs with Resolutions/Letters Opposing H.R. 687/S. 339, SE AZ Land Exchange

- National Congress of American Indians the oldest and largest organization representing tribes across the country
- Inter-Tribal Council of Arizona represents 20 tribes in Arizona
- Inter-Tribal Council of Nevada represents 27 tribes in Nevada
- United South and Eastern Tribes- represents 26 tribes in Maine, New York, Connecticut, Massachusetts, Rhode Island, North Carolina, South Carolina, Alabama, Mississippi, Louisiana, Florida, and Texas and based in Tennessee
- Midwest Alliance of Sovereign Tribes represents 35 tribes in Minnesota, Michigan, Wisconsin, and Iowa
- Affiliated Tribes of the Northwest Indians represents 57 tribes located in Washington, Oregon, Idaho, Southeast Alaska, Northern California, and Western Montana
- All Indian Pueblo Council represents 20 pueblos located in New Mexico and Texas
- San Carlos Apache Tribe, Arizona
- Hopi Tribe, Arizona
- Ak-Chin Indian Community, Arizona
- Ft. McDowell Yavapai Nation, Arizona
- White Mountain Apache Tribe, Arizona
- Colorado River Indian Tribes, Arizona
- Cocopah Indian Tribe, Arizona
- · Hualapai Tribe, Arizona
- Ft. Mojave Indian Tribe, Arizona, California, and Nevada
- Susanville Indian Rancheria, California
- Jicarilla Apache Nation, New Mexico
- Mescalero Apache Tribe, New Mexico
- Cherokee Nation, Oklahoma

# Tribes and Tribal Orgs with Resolutions/Letters Opposing H.R. 1904 in the 112<sup>th</sup> Congress – Same bill as H.R. 687

- National Congress of American Indians
- Inter-Tribal Council of Arizona
- Inter-Tribal Council of Nevada
- United South and Eastern Tribes
- Midwest Alliance of Sovereign Tribes
- Great Plains Tribal Chairman's Association represents 16 tribes in North Dakota, South Dakota, and Nebraska
- All Indian Pueblo Council represents 20 pueblos located in New Mexico and Texas
- Eight Northern Indian Pueblos Council, Inc.
- Affiliated Tribes of the Northwest Indians
- San Carlos Apache Tribe, Arizona
- White Mountain Apache Tribe, Arizona
- Pascua Yaqui Tribe, Arizona
- Yavapai-Apache Nation, Arizona
- Yavapai- Prescott Indian Tribe, Arizona
- Ft. McDowell Yavapai Nation, Arizona

- Cocopah Indian Tribe, Arizona
- Hopi Tribe, Arizona
- Tohono O'odham Nation, Arizona
- Navajo Nation Council, Arizona, New Mexico, and Utah
- Navajo Nation Human Rights Commission
- Dine (Navajo) Medicine Men's Association
- Ft. Mojave Indian Tribe, Arizona, California, and Nevada
- Poarch Band of Creek Indians, Alabama
- Sealaska Heritage Institute, Alaska
- Susanville Indian Rancheria, California
- Ramona Band of Cahuilla, California
- Kashia Band of Pomo Indians, California
- Karuk Tribe, California
- Ute Mountain Ute Tribe, Colorado
- Shoshone-Bannock Tribes, Idaho
- Association on American Indian Affairs, Maryland
- Saginaw Chippewa Indian Tribe, Michigan
- Duckwater Shoshone Tribe, Nevada
- Fallon Paiute-Shoshone Tribe, Nevada
- Wells Band Council, Te-Moak Tribe, Nevada
- Mescalero Apache Tribe, New Mexico
- Jicarilla Apache Nation, New Mexico
- Pueblo of Tesuque, New Mexico
- Pueblo of Picuris, New Mexico
- Pueblo of Santo Domingo, New Mexico
- Pueblo of Santa Clara, New Mexico
- Pueblo of Zuni, New Mexico and Arizona
- Confederated Tribes and Band of the Yakama Nation, Washington
- Confederated Tribes of the Colville Reservation, Washington
- Puyallup Tribe of Indians, Washington
- Skokomish Indian Tribe, Washington
- Muckleshoot Tribe, Washington
- Shoshone & Arapaho Tribes, Wyoming



March 18, 2013

Mr. Terry Rambler Tribal Chairman San Carlos Apache Tribe Post Office Box 0 San Carlos, Arizona 85550

Dear Chairman Rambler,

At the Tribe's request, our firm has reviewed potential environmental impacts of the proposed Resolution Copper Mine near Superior, Arizona. This review included an assessment of the impacts of the mine on water supplies, water quality, waste management, and the potential for land subsidence. Normally hydrogeologic studies and environmental analyses would be conducted for a project of this magnitude. To our knowledge, these studies have not been conducted (or not been made available to the public) and many details of the operation of and impacts from the mine are not known. Thus, this letter provides our preliminary analysis based on the small amount of data that has been made available.

The need for dewatering of the deep mine and the need for a water supply for mine operations and ore processing are two reasons this mine will pump a large amount of water from the aquifer, depleting the groundwater: a scarce natural resource in Arizona. Resolution proposes using a block mining process for this mine. The deep block caving process essentially relies on mining from below by breaking up rock in the ore zone and inducing the ore-bearing rock to collapse down to the undercut level (below the ore body) where it is removed. The working areas of the mine must be dewatered in order to extract the ore, which will require continuous pumping of large volumes of water out of the aquifer. The mine will also require a vast amount of water to operate (far more than it would extract for dewatering), largely for ore processing. Current estimates are 17,000 to 20,000 acre feet per year. This is equivalent to the residential water needs of a city of 180,000 people. This is a problematically large water demand considering the mine's location in the arid southwest.

Resolution has acknowledged that it has not identified sources for all its water needs, and it has referred to banking of excess water from the Central Arizona Project (CAP) as one source. Considering that demand for water from the Colorado River is growing and supply

is declining (due to climate change among other reasons), the US Bureau of Reclamation estimates that demand will outstrip supply in the near future. Thus it is highly speculative that CAP water will be a reliable source for Resolution over the decades-long lifetime of the mine. In fact, Resolution correctly admitted that "excess CAP water will not always be available for purchase and other sources will be needed." It seems apparent that Resolution will need to rely on local groundwater resources to provide a significant percentage of Resolution's water supply if it is to be a viable project.

It is virtually impossible for Resolution to meet even a fraction of its water needs from local groundwater in a sustainable manner: the amount of water needed is just too vast for the natural processes that recharge the aquifer in this arid region of Arizona to replenish the needed withdrawals.

Because groundwater and surface water systems are intimately interrelated, pumping too much groundwater will have a negative impact on nearby surface water resources because lowering the water table can starve the local streams of recharge from the aquifer. This is a serious issue that is very difficult if not impossible to mitigate. For example, the nearby Carlota Mine uses much less water than the proposed Resolution Mine (approximately 1,000 acre feet per year). In a 25-day pump test at the Carlota Mine, stream flow in Haunted Canyon (2,300 feet from the nearest well) declined from 45 gallons per minute to 5 gallons per minute, thus threatening the sensitive riparian habitat.<sup>2</sup>

Given the depth of the ore body and the need to dewater the mine workings that are deep below the water table, Resolution will have to aggressively pump groundwater from the aquifer. The effect of this pumping will be felt far beyond the boundaries of the mine because it will create a large groundwater cone of depression that will draw down groundwater levels and starve surface water bodies in the surrounding areas. Nearly all of Resolution copper's tunneling infrastructure will be located well below the elevation of the streams in the region, thus the threat to surface water resources and the riparian habitats that depend on stream flow will be threatened.

In fact, the dewatering operation at Magma Mine already illustrates the non-sustainability of large-scale groundwater withdrawals. Since dewatering began in 2008, water levels in the Magma shaft have declined nearly 2,000 feet and water levels in the surrounding aquifer will inevitably decline as well. According to US Geological Survey records, since 2008, the average stream flow in Queen Creek (downstream of the mine site) has been less than half the average stream flow before Resolution began dewatering at Magma Mine<sup>3</sup>. There may be other variables affecting stream flow in Queen Creek such as climate

<sup>&</sup>lt;sup>3</sup> Based on average annual streamflow from 2001-2007 in Queen Creek below Whitlow Dam, near Superior, Arizona. Accessed from website: <a href="http://waterdata.usgs.gov/usa/nwis/uv?site\_no=09478500">http://waterdata.usgs.gov/usa/nwis/uv?site\_no=09478500</a> on March 15, 2013.



<sup>&</sup>lt;sup>1</sup> US Department of Interior Bureau of Reclamation, 2012, Colorado River Basin Water Supply & Demand Study.

<sup>&</sup>lt;sup>2</sup> Martin and Loomis, 2004, Keeping Our Streams Flowing: Tonto National Forest Groundwater Policy, paper presented at: Advancing Fundamentals of Science, A Conference for Forest Service Earth Scientists.

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variability, but the mine dewatering is surely contributing to the depleted stream flow. This pumping project removes far less water than the mine will eventually require (approximately 920 acre feet per year compared to the mine's eventual need for 17,000 to 20,000 acre feet per year). The simple act of dewatering will have negative effects on regional water supplies. If Resolution depends on even more groundwater for it operations, the negative impacts will only grow.

Due to chemical interactions with the ore minerals, the groundwater pumped from the mine will be of poor quality, with elevated levels of metals and low pH. This condition will persist essentially forever because by breaking up the rock, the mining operation vastly increases the surface area of the rocks, increasing the rate and degree of chemical reactions between the ore minerals and the groundwater. This is essentially a subsurface example of the well-known problem of acid mine drainage that plagues mining districts across the western United States.

Land subsidence as the result of the block caving process is a strong probability. In block mining, after enough rock is removed from the base of the ore body, a void space is created and rock from above collapses into the void space due to gravity. Obviously, if this process reaches too near the surface, the land surface will collapse into the mine workings as well. Thus avoiding land subsidence requires the dubious premise of controlling an essentially uncontrolled process of collapsing rock into ever larger void spaces created by the removal of deep ore-bearing rock.

We hope this brief summary is useful to you. We will provide more detailed analysis of potential environmental impacts and water consequences of the Resolution Mine as more information becomes available.

Sincerely yours,

L. EVERETT & ASSOCIATES, LLC

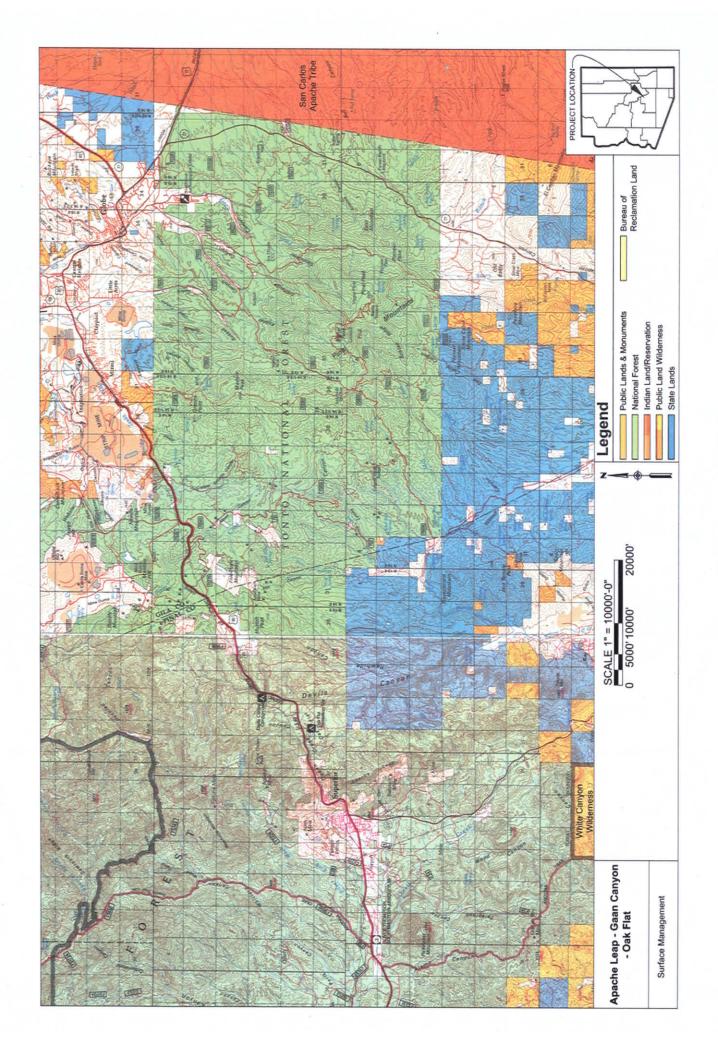
James T. Wells, PhD, PG

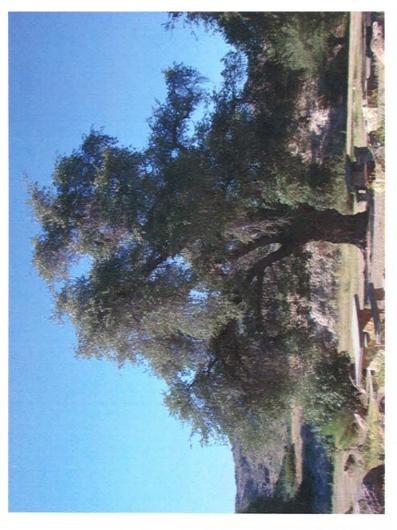
C.O.O. and Principal Geologist

James Welle

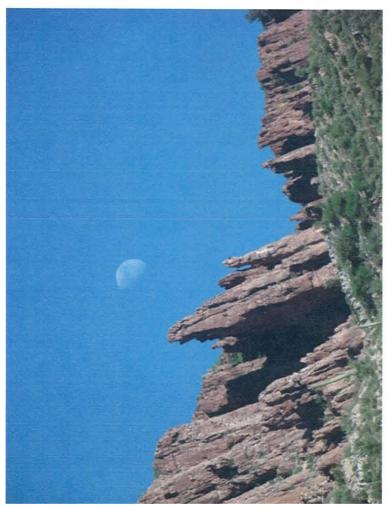
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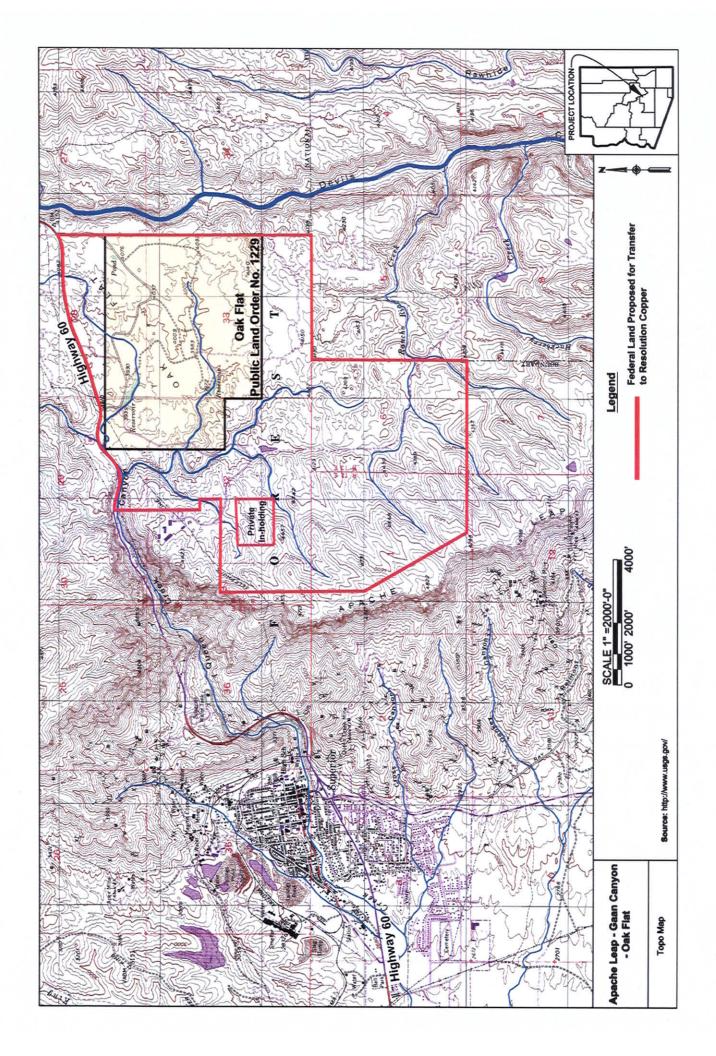




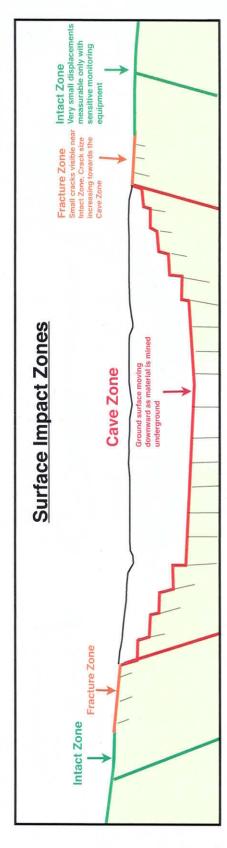




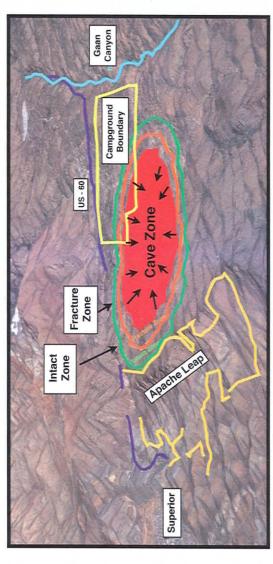




# **EFFECTS OF BLOCK CAVE MINING**



The effects on the surface will vary with distance from the ore body and can be divided into a series of zones as illustrated in this figure.



Resolution Copper's Projected Subsidence Zone on completion of Mining

