

**Written Testimony of Roger Featherstone
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**For the
National Parks, Forests, and Public Lands Subcommittee of the House
Natural Resources Committee
Testimony on HR 1904 “Southeast Arizona Land Exchange and Conservation
Act of 2011”
Tuesday, June 14, 2011**

On behalf of the Arizona Mining Reform Coalition I appreciate the opportunity to express our views about HR 1904, the Southeast Arizona Land Exchange and Conservation Act of 2011 (Oak Flat Land Exchange). Several of our member groups have submitted their own written testimony and we support and incorporate their testimony into ours.

The **Arizona Mining Reform Coalition** works in Arizona to improve state and federal laws, rules, and regulations governing hard rock mining to protect communities and the environment. We work to hold mining operations to the highest environmental and social standards to provide for the long term environmental, cultural, and economic health of Arizona. Members of the Coalition include: the Grand Canyon Chapter of the Sierra Club, EARTHWORKS, Save the Scenic Santa Ritas, the Dragoon Conservation Alliance, the Groundwater Awareness League, Concerned Citizens and Retired Miners Coalition, Concerned Climbers of Arizona, the Center for Biological Diversity, the Empire-Fagan Coalition, Environment Arizona, and the Sky Island Alliance.

Introduction

Resolution Copper Company—a wholly foreign-owned subsidiary of Rio Tinto and BHP-Billiton, two of the largest mining companies in the world—is seeking to develop an underground copper mine. Rio Tinto seeks to acquire Oak Flat, Apache Leap, and surrounding public lands for its private use through this land exchange bill. There are many significant problems posed by this unusual bill. For example, if approved, 2,406 acres of the Tonto National Forest will become private property and will forever be off limits to recreationists and all those who enjoy public lands. Privatization of this land would end public access to some of the most spectacular outdoor recreation and wildlife viewing areas in Arizona. If a mine is developed, this land would be affected by massive surface collapse subsidence, leaving far-reaching and permanent scars on the landscape, among other ongoing harms to this entire area.

Similar versions of this bill have been introduced in Congress since 2005. None of these previous bills have been approved by either chamber of Congress. Previous Congresses have recognized that this exchange is simply not in the best interest of the American public.

The Oak Flat Campground was recognized by the Eisenhower Administration as an important recreational resource in 1955 under Public Land Order 1229, as amended, and 760 acres of Oak

Flat were specifically placed off limits to future mining activity. This unique area is a world-class natural resource for birding, hunting, hiking, camping, rock climbing, bouldering, canyoneering, picnicking, responsible off-highway vehicle driving, and other recreational uses. Oak Flat receives tens of thousands of visitors each year who enjoy the peace and beauty of this landscape, while at the same time infusing needed tourist dollars into the surrounding area of Superior and Globe. Gaan (known also as Devil's) Canyon and the waters of Queen Creek border the Oak Flat area. These important surface waters represent two of the crown jewels of Arizona's state trust lands, with some of the finest remaining riparian habitat in the state.

The Oak Flat Campground, Apache Leap, and the surrounding area are also very important for recreation, and shade from the large Oak trees at Oak Flat and the fantastic scenery have long served as a respite to the citizens of the town of Superior and those who travel along nearby Highway 60. Many Superior residents oppose the Oak Flat Land Exchange. Oak Flat, Apache Leap, Gaan Canyon, and the surrounding area are also important religious sites for Western Apaches and Yavapais, including the San Carlos Apache Tribe, the White Mountain Apache Tribe, and the Fort McDowell Yavapai Nation. The religious and traditional use of Oak Flat by Native Americans continues to this day. The Tonto National Forest has "discovered" at least a dozen archeological sites in and around Oak Flat. Making Oak Flat private land would forever eliminate these traditional cultural and religious uses of that unique area and the destruction of this area by the mining project would eliminate any meaningful access that Native Americans have to this important place. According to well known lore from the area, Apache Leap is an historical land known as the Apache's Masada. It is hallowed grounds where many dozens of Apaches leaped to their deaths when trapped by the U.S. Army.

H.R. 1904 is wholly inadequate to protect the important values of this unique landscape. In fact, the bill contains no provisions for meaningful environmental or cultural review or public input. Furthermore, Rio Tinto would not even be required to file a mining plan for years and it has offered scant and often conflicting information about (1) what will become of Oak Flat, Apache Leap, Gaan Canyon and the surrounding environs; (2) where the massive amount of mining tailings will ultimately reside; (3) where it will obtain the enormous amounts of water needed for mining or what will have to be dewatered for the mining activity to be maintained deep below the Earth; (4) how endangered species such as the Arizona hedgehog cactus, (*echinocereus triglochidiatus arizonicus*) and Sonoran ocelot, (*Leopardus pardalis sonoriensis*) will be protected and preserved; and (5) how necessary religious and cultural resources will be protected. Importantly, the bill makes no mention of the surface collapse of the area which is certain to occur if Rio Tinto is allowed to mine this area as it intends. Much has yet to be addressed regarding environmental considerations.

This bill is at best premature. Before an informed decision can be made on the merits of any land exchange for mining purposes, the public must review and debate a plan of operation for an actual mine. Only if, after full review of a plan of operations and alternatives, a decision is made to move forward with a mine, should a potential land exchange be considered, if at all.

For this, and other reasons listed below, we oppose H.R. 1904 in its current form.

Economic and Other Risks

It is well known that mining companies do not pay royalties on mined federal properties thereby significantly fleecing the American taxpayer. However, under the terms of the legislative land exchange proposed in HR 1904, (which would cede control of what may be one of the larger copper deposits in North America to foreign interests), very few of the financial benefits touted by the mining company would be realized by the American public. Giving away Oak Flat to Rio Tinto at this stage, well before Rio Tinto has even determined that a new mine at Oak Flat is even feasible, is not a sound business decision and is unfair not only to the taxpayers, but to the tribes and recreational users who depend on this area. Rio Tinto's own literature stresses that a mine at Oak Flat would be technologically challenging and that further assessment is needed before the company decides to fully commit to building a mine. Indeed, Rio Tinto is presently only in the pre-feasibility phase of exploration of this area, and feasibility studies are not yet scheduled to commence until at least 2013 or 2014.

There are considerable financial and environmental risks and losses for the American people if the land exchange is to be approved and that must be examined before a determination can be made regarding whether or not this land exchange is in the public interest. There is the loss of religious freedom for Native Americans, the loss of unique public lands for the American public, and the loss of the treasured Oak Flat Campground to the citizens of Superior and others that are incalculable. Risks include the potential loss of the entire Gaan Canyon ecosystem due to drawdown of the water table or the collapse of portions of the Oak Flat area and Apache Leap due to stress fracturing and the eventual sinking of the surface from the proposed block cave mine. With the death of a young wild-born endangered ocelot right next to Oak Flat, we now have possible evidence of endangered mammals that would be affected by the land exchange and a new mine. This risk of loss before we even know the extent of ocelot use and occupancy of Oak Flat is also incalculable. The loss to other unique animals found at Oak Flat due to the mine should also not be treated lightly. Oak Flat is home to a diversity of unique and valuable wildlife. (*See Jacobs & Flesch, "Vegetation and Wildlife Survey of Devil's Canyon. Tonto National Forest" (2007); Jacobs, Vegetation and Wildlife Survey of Devil's Canyon, Tonto National Forest" (2009)*). The Oak Flat area also contains nesting and wintering habitat for a number of birds listed on the United States WatchList -- a joint project between the American Bird Conservancy and the National Audubon Society.

There are also costs that are difficult, but not impossible to calculate. For example there is some estimate on the economic value of the loss of recreational opportunities at Oak Flat as a world class climbing location, but there are less data on the economic loss from other forms of recreation such as hiking or birding. A recent report on the economic value to Arizona from human-powered recreation (birding, climbing, hiking, etc.) shows that human-powered recreation in Arizona provides more than 86,000 annual jobs and provides 12 percent of Arizona's retail economy. It also shows that more than 1 out of 4 Arizonans climb, hike or canyoneer. It would be difficult, but we could also calculate the value of water lost for other uses by a new mine at Oak Flat and could calculate the cost to Arizona to clean up after Rio Tinto if the company leaves behind a mess as has happened with numerous other mines.

It is certain that a new mine at Oak Flat would cause environmental damage. There also would be additional negative costs from a mining operation to the local, state, and federal infrastructure

(roads, utilities, bridges) and services (fire, police, schools and healthcare). These costs could more easily be calculated if there was a mining plan of operation that could be used to help those who will be most directly impacted by this exchange and massive mining project (and you the decision-makers) in deciding whether this land exchange is truly in the public interest.

Given the current economic conditions the state of Arizona is facing, the sponsors of HR 1904 are characterizing this legislation as an economic development bill. In reality, too many unsubstantiated facts and unanswered questions remain regarding the overall economic feasibility and benefit of this exchange to the American taxpayer. For example, Resolution Copper, while a joint venture of foreign mining giants, is registered as a Delaware based Limited Liability Company (LLC). Notably, nine percent of Rio Tinto is owned by the state-controlled Aluminum Corporation of China, also known as Chinalco. As past events have shown, Rio Tinto is very willing to do business with China and it is very likely that China's share in any mine at Oak Flat would increase. Indeed, in recent years, China has attempted to double its interest in Rio Tinto, just as it has purchased other mining interests across the world for its purposes. In essence, approving this land exchange would give China a stake in land now owned by the American public – lands that were once within the exclusive occupation of Western Apache and Yavapai people, and which remain central to their religion and culture today.

While press releases and other statements issued upon the introduction of HR 1904 imply that the copper and other metal resources purportedly found below Oak Flat will be sold to and used by the United States, in fact, there is nothing in HR 1904 that would actually require Rio Tinto to sell these resources to the United States. Indeed, it must be reasonably assumed the copper and other important metals that could come from a mine at Oak Flat would not stay in the United States and be used to create U.S. manufacturing jobs and further, that most of the profits of a mine at Oak Flat would be shipped off-shore and not held within the United States based on these companies mining operations, holdings, and performance.

While China (and other developing nations) are stockpiling copper and other important resources, Congress would, through HR 1904, turn over exclusive control and ownership of purportedly one of the larger copper ore deposits in North America to the foreign owned companies of Rio Tinto (owned in part by China) and BHP Billiton. In doing so, it would seem that Congress would be increasing China's strength, while weakening the national security of the United States. Undermining the long-term competitiveness of U.S. companies has obvious adverse impacts on the United States' economy and job growth potential.

In December of 2009, the United States government nixed a plan for China to invest in a Nevada mining operation on the grounds of national security. One would think that Congress would pause and examine with great interest this land exchange for similar reasons.

Appraisal and Royalty

HR 1904 calls for an appraisal report that would include an income capitalization approach analysis, in accordance with the Uniform Appraisal Standards for Federal Land Acquisition (UASFLA), of the market value of the federal land. Since much of the information needed to accurately appraise value of the public land in question at Oak Flat by using the income

capitalization approach could only be obtained by preparing a detailed mining plan of operation and other supporting information, mandating that this appraisal method before a mining plan is written basically assures that the land exchange would be a taxpayer rip-off and not in the best interest of the American people.

The income capitalization approach often requires the appraiser to use a multitude of indicators, facts, and variables, the accuracy of which cannot clearly and easily be demonstrated by direct market data [See *Foster v. United States*, 2 Cl. Ct. 426 (1983)]. This is particularly true when discounted cash flow analysis or other forms of yield capitalization are employed in the analysis. Furthermore, within the UASFLA there are several specific requirements to assess values, including the need for a detailed mining plan for the property, which according to the bill would not be available until long after the appraisal is complete and the land exchange consummated. UASFLA requires that production-level estimates should be supported by documentation regarding production levels achieved in similar operations. Again, without a comprehensive mining plan at the time of the appraisal, it would be difficult, if not impossible for an appraiser to determine which other operation could be used for comparison. The annual amount of production and the number of years of production are more difficult (and speculative) to estimate, and require at a minimum, not only physical tests of the property to determine the quantity and quality of the mineral present, but also market studies to determine the volume and duration of the demand for the mineral in the subject property. However, it is unknown at this time what the true production estimates are as specific mining plan details have not been forthcoming from Rio Tinto. In addition, the true quality or quantity of the material is unknown and the extraction technology for this mining operation at a 7000-foot depth has not been developed and thus not currently available. This fact is further underscored by the lack of available information on production levels being consistent with a mining plan's labor and equipment.

In further examining UASFLA, the income capitalization 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. The NPV of a future income is always lower than its current value because an income in the future assumes risk. The actual discount factor used depends on this assumed risk. A proven technology carries a lower risk of non-performance, and thus, a lower discount rate, than a technology being applied for the first time.

Given the evaluation standards prescribed by the UASFLA, coupled with the lack of factual data and uncertainty of the technology described above, the final appraisal of this massive ore body could ultimately net zero, meaning that the valuation of the federal lands exchanged for the benefit of RCC would not reflect the value of the copper and other saleable minerals these lands contain. The American taxpayer would once again be short-changed.

To compound the problem, the bill language forbids the federal government from reopening the appraisal process. Therefore, if and when it becomes apparent that the appraisal was too low, there would be no opportunity for the United States to negotiate a better deal for the taxpayer.

Rio Tinto must be required to provide additional information and pay for additional research in order to generate an appraisal that is fair and equitable to the people of the United States, and any

such appraisal should occur after the technology exists to mine this particular ore body and a plan of operations has been created.

Moreover, since the federal government has yet to perform a substantive economic evaluation of the lands along with the copper and other minerals to be exchanged to RCC, it is also impossible for the Congressional Budget Office (CBO) and/or Office of Management and Budget (OMB) to effectively evaluate HR 1904. The public interest requires that a complete and fully informed appraisal and equalization of values be performed prior to Congressional passage of HR 1904. Rio Tinto has asserted that there may be over 1.34 billion tons, containing 1.51 percent copper and 0.040 percent molybdenum to be removed over the 66 years of the mine's life. Although the current value of all minerals present on these federal lands is not provided by Rio Tinto, estimates have ranged from \$100 to \$200 billion. Thus, even the company's own self evaluation of the ore body underlying these public lands is orders of magnitude greater in value than that of the non-federal parcels offered in exchange to the public.

Section 4(i) of the legislation requires that the exchange and other critical documentation be completed within one year after congressional passage. Given the rationalizations above regarding the complexity of such analysis, it is incredulous that one year is sufficient time for the completion, and subsequent thorough examination and review of all reports and appraisals. Indeed, Michael Nedd, then Assistant Director of Minerals and Realty Management for the Bureau of Land Management, stated in his previous testimony on this matter that he and the BLM did not believe a one year provision was 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. Yet, the sponsors of this bill have chosen not to heed the government's own experts' advice and counsel on mineral appraisals.

Once Rio Tinto has completed its evaluation and analysis, we urge Congress to require an independent, third party review of all the reports, including the engineering report, for this operation. This must be accomplished in consultation with all affected parties prior to this legislation moving forward. At this time, relying on Rio Tinto's current information and other reports or the Departments of Agriculture and Interior review of these reports is insufficient. Only a third party certification can help assure that the taxpayers get a fair return on the minerals they are giving up in this land exchange.

In examining the royalty provisions found in HR 1904, which are based on the same faulty assumption made in Section 4 of the bill, it is highly likely that trading these federal lands into RCC's private ownership will result in unquantifiable, inequitable, and effectively zero royalties being provided to the United States taxpayer.

Job Claims

Since the first Oak Flat land exchange bill was introduced by former Congressman Rick Renzi, proponents of the land exchange have substantially inflated the number of jobs they claim a mine would provide. In March 2005, newspaper articles appearing in the *Arizona Republic* and the *Tucson Citizen* reported that the mine would create 450 jobs. Today Rio Tinto's job number claims range from 1,200 to 6,000. However without a detailed Mining Plan of Operations,

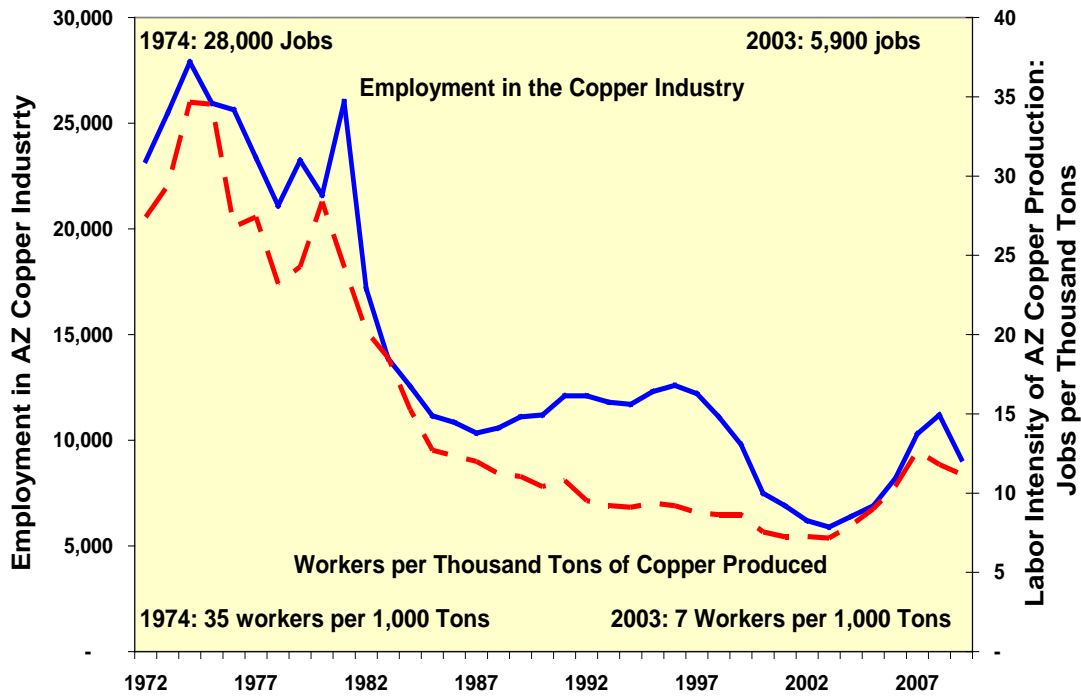
estimates on the number of jobs that would be created by a mine at Oak Flat are pure speculation.

While Augusta Resource Corporation commissioned a report that was widely optimistic about jobs and economic growth in southern Arizona from a proposed copper mine south of Tucson, Arizona, this report has been heavily criticized for inflating the number of indirect jobs created, at least Augusta’s analysis was based on a real mining plan of operation. Here, Congress and the American public are being asked to take, essentially at face value, an economic and job forecast done in part by some of the same institutions that did the Augusta report, without the benefit of a mining plan. One has to question the credibility of job claims that have ranged so widely.

Trends in the mining industry are very clear. Modern mines generate more product with fewer workers. For years, mining companies have relied on the increased use of technology to cut labor costs. For example, when the Magma Mine shut down in 1982, 1,400 people were laid off in a single day. When the mine reopened in 1989, 400 people were employed and the production rates were as much or more as when the mine shut down in 1982. (Of this new labor force, less than 100 of these employees resided in Superior and the economic benefit to the community at that time was minimal.)

The following graph shows downward trends in mining employment in Arizona while production levels remain high.

Declining Labor Intensity and Employment In Arizona Copper Industry



From *Analyzing the Local Economic Impacts of a Large Copper Mine: Including Both Benefits and Costs* by Dr. Tom Power, Professor Emeritus, University of Montana

Rio Tinto has been talking about high levels of automation for this mine. Rio Tinto and its partner at Oak Flat, BHP Billiton, have been pioneers in the production of automated trucks, driverless trains and other automation features. Rio Tinto just announced the addition of an additional 10 driverless trucks at its highly automated iron mines in the Pilbara region of Australia. Starting next year, for the first time, Rio Tinto's driverless trucks will be hauling ore in addition to waste.

Much of the operations of the Pilbara mines are controlled from the city of Perth, 800 miles away. This level of automation is increasingly common and is intended to cut costs along with the number of workers needed for mining activities. Based on current technology it would be possible to control most of the operation of a mine at Oak Flat from anywhere in the world. In fact, much of Rio Tinto's mining and Resolution Copper's business addresses for tax records are based in Utah. It is not unlikely that this mine could easily be controlled by a remote operating center in Utah, just as the Pilbara mine is controlled from 800 miles away in Perth, Australia. If the U.S. military can control drone aircraft operating in Afghanistan from Nevada, it is not unlikely that a mine at Oak Flat could be controlled from Utah or even Perth.

The workforce of a modern mine has also changed dramatically. When the Magma Mine closed in 1982, the town of Superior had 6,300 residents. By the time the mine had reopened in 1989, the town's population had dropped to 3,200, and only 100 of the mine's workers lived in Superior. If a mine was to open at Oak Flat, according to current trends and given the educational requirements for this automated mine, it is probable that even those workers who worked on site would live in Phoenix or its suburbs and commute to Superior rather than live there and add to the town's economic prosperity. One only needs look at the license plates of the trucks parked at the drilling rigs or at the Rio Tinto office in Superior. Many are from Utah, Mexico or other places rather than from Arizona. Since modern mines require highly skilled operators, there is a small labor pool that travels from mine to mine to work but never settles permanently near the mine.

What all of this means is that there would be increased employment if a mine is built at Oak Flat, but very little of that employment would come from local hires or from workers that would resettle in the local area. The extensive equipment needs of a mine would also not be manufactured locally, as it is more likely that this equipment would be made overseas as is most new equipment used in modern mines.

Lastly, when it comes to the issue of jobs, since Rio Tinto's plans call for it to be at least a decade before a mine is built, there is simply no immediate job creation offered by this mine, making any enhancement to the immediate local needs of Arizona minimal at best.

Some have said that the opening of a mine at Oak Flat would lead to a revitalization of the town of Superior. However, while Rio Tinto has employed 100 – 200 people for the past half dozen years for exploration, shaft sinking, and other duties, the population of Superior has dropped another 400 people according to the latest census data. There is no reason to believe this trend would change as a result of the land exchange and mining project to be facilitated by HR 1904.

Environmental Review

A previous version of the land exchange gave the Secretary of Agriculture the power to determine whether the land exchange was in the public interest and in the case that the Secretary found it was not, the Secretary was able to stop the exchange. That provision is entirely missing in this bill. HR 1904 leaves the sole decision-making authority for approving the land exchange in the hands of Congress without providing for, as detailed above, the plans and studies to show that the exchange is in the public interest, and that the American taxpayer is getting a full return on the sale of precious public assets.

The bill mentions the National Environmental Policy Act (NEPA) but then takes the teeth out of the federal decision-making process. The language states that prior to commencement of mining in commercial quantities, Rio Tinto must submit a mining plan of operation to the Secretary of Agriculture and that the Secretary must complete a NEPA review of this plan within three years. It does not say what this mining plan should include nor does it mention what the Secretary can do if the plan is inadequate or incomplete. It says that this NEPA document would be the **only** document prepared to guide federal officials regarding federal actions or authorizations related to the mine. Never mind that NEPA is a law meant to give federal land managers a chance to “look before they leap” and that this exercise in futility would already have a mandated outcome. Never mind that the plan would not have to be written until the mine was already built, and never mind that the land in question would be private property, so there may never be a federal nexus that would trigger NEPA. It is unlikely that the U.S.D.A. Forest Service could do a full NEPA analysis in three years, even if Rio Tinto was 100 percent cooperative with them. Rio Tinto’s current plan, which has changed many times and probably will continue to change, eliminates any federal nexus if the land exchange is enacted. In that case, the federal government would have spent three years and a lot of taxpayer money to write a meaningless document that would never be taken off the shelf and used.

Previous information released by Rio Tinto led the public to believe that the company was planning on storing the mountain of waste a mine would generate and doing most of the milling at the nearby Pinto Valley Mine owned by BHP Billiton. In fact, one of the purposes of the pre-feasibility exploratory drilling that was recently approved was to allow Rio Tinto to conduct testing to see where a tunnel to the Pinto Valley Mine could be placed. However, new information is pointing to a Rio Tinto plan to move ore and waste from their proposed mine out under Apache Leap through an existing tunnel, and perhaps new tunnels, through the town of Superior and then disposing of the tailings to the west near the proposed Superstition Vistas housing development. Should that be Rio Tinto’s plan, it would eliminate any federal nexus from the project since the company already owns the necessary rights-of-way through National Forest public lands. Again however, until a mining plan of operations is written, no one except perhaps Rio Tinto knows for sure what it is planning and the company isn’t talking.

If the land exchange is passed and consummated, State of Arizona mining laws would apply. Arizona has the weakest state mining laws in the country. Not only would the state permitting process make it much more likely that a bad mine design be approved, but state rules leave enforcement of its laws up to the companies themselves. In addition, a critical component of any mining plan is the closure plan. A good mine design plans for closure from day one. However,

the Arizona process does not require a mining company to submit a closure plan for review until no less than five years before closure is contemplated. This not only flies in the face of good mine design, but severely hampers both the company and the state from closing the mine in an environmentally responsible manner.

A key feature of any good mining permit is adequate bonding to insure that if something goes wrong or a company goes bankrupt before reclamation is complete, there is enough money in hand to fully close, remediate and protect the public at the company's – not taxpayers' – expense. However, Arizona allows mining companies to self-insure their bonds by using a corporate guarantee. This works only if a company is solvent and intending to stay in the state, but Resolution Copper, the wholly owned subsidiary of Rio Tinto and BHP, is chartered as a limited liability corporation in the state of Delaware. If something went wrong with a mine at Oak Flat, the parent companies could strip Resolution Copper of all its assets, similar to what Grupo Mexico did with ASARCO a few years ago. If that happens, the state of Arizona would be responsible for picking up the pieces and the burden would surely fall on the taxpayer. Federal bonding provisions, on the other hand, require cash or other liquid security to be held by the federal government to better assure that the taxpayer is not liable if a company skips out on its obligations.

This lack of good and enforceable state laws is another factor that must be considered in weighing whether this land exchange is in the public interest.

Water

A block cave mine such as the one Rio Tinto has been talking about would use in the neighborhood of 40,000 acre-feet of water per year. That amount is roughly equivalent to the amount of water used by the city of Tempe (160,000 people). Rio Tinto has no water rights necessary to develop and operate the mine being proposed or to process ore. Rio Tinto has been less than transparent in telling the public where it intends to secure the water necessary to operate its mine. Water is in short supply in all of Arizona and due to the increasing pressure from housing; BHP has received approval for the construction of 35,000 homes on its private lands near the San Pedro River just above the Seven B Ranch that is part of this proposed land exchange. Those homes could use as much as 20,000 acre-feet of water per year. This would not only dewater the Seven B Ranch and put additional pressure on the San Pedro River, but also take that amount of water out of the regional pool that Rio Tinto would also try to draw from should they build a mine at Oak Flat. In addition, the Superstition Vistas proposed development west of Oak Flat would also use enormous quantities of water. Superior and Oak Flat are also at the headwaters of much of the Phoenix water supply. The Carlota Mine is also pumping large amounts of groundwater. Putting all of this in context, the region is facing a serious water shortage without a new mine at Oak Flat. Building a mine that uses the amount of water as the city of Tempe would create serious water shortages. The federal mine permitting process would expose and examine these water problems. However, HR 1904 would bypass that process and give away Oak Flat to Rio Tinto before an examination of water quantity problems could be undertaken and the cumulative impacts analyzed.

So where will Rio Tinto get this water? (Note, in Arizona, there are very few laws regulating groundwater pumping by mining companies.) Historically, mines just drill wells that are deeper than their surrounding neighbors' wells. Such deep water wells dry up neighboring wells, de-water surface waters and impact the entire region's water needs. As the members of this Subcommittee are aware, water is a critical resource in the State of Arizona. Rio Tinto has previously "banked" water from the Central Arizona Project (CAP), but with looming shortages of water in the Colorado River basin, that water cannot be counted on. Only a complete NEPA review before the decision on whether to proceed with the land exchange is made will provide answers to the critical issues surrounding Central Eastern Arizona's water resources and needs in the area of the proposed Resolution Copper Mine.

Mines pollute groundwater and surface water even when they predict they will not. Acid and heavy metal mine drainage leaking into groundwater and surface waters are a common result of copper mining. Mines pollute surface water and groundwater with toxins and carcinogens, requiring more expensive surface reclamation and long-term water treatment. Rio Tinto is dewatering an old mining shaft that has flooded. The water in that shaft is contaminated and loaded with heavy metals. In order for that treated water to be reclaimed and be re-used, it has to be diluted with 10 parts of CAP water to each part of treated water prior to being transported to the New Magma Irrigation District for use on crops.

Gaan Canyon is located in the Tonto National Forest and on State Trust Lands near the proposed mine, just northeast of the town of Superior. It flows into Mineral Creek, which is a tributary of the Gila River. Gaan Canyon provides important and all too rare riparian habitat in a state where much of our riparian habitat has been degraded or destroyed – most estimates indicate that more than 90 percent has been lost to water diversions, groundwater pumping, and other activities. Gaan Canyon is an area enjoyed by hikers and climbers and those seeking some relief from the heat. Sycamores and Arizona alders thrive on Gaan Canyon's water and also provide valuable habitat for wildlife. Considering its proximity to the proposed mine, the depth of the mine and the associated water pumping that will occur to dewater it, the risks of dewatering Gaan Canyon are significant.

Subsidence

Rio Tinto wants to mine at Oak Flat using a method of underground mining called block cave mining. Block cave mining is cheaper and perhaps more efficient than other forms of underground mining, but every block cave mine built has caused the surface above the mine to sink and has caused fracturing of the surface and subsurface rock above the mine.

The fracturing of the rock above the mine causes a cone of depression that transports water from the surface down into the mined area. Gaan Canyon, Oak Flat and the surrounding area are watered by a shallow aquifer, which thus far has been largely separated from deeper aquifers. However, block caving would fracture the rock protecting the surface aquifer. That would cause the surface water to drain through the fractures well before the surface sinks due to subsidence. If and when this happens, Gaan Canyon would dry up, the oaks would die and the ecosystem would be severely impacted. Once cracking near the surface occurs from the effects of block caving,

there is no turning back. Again, there are no provisions in this bill to study the impacts of subsidence before the land exchange was consummated.

Protection of Apache Leap

While there is language in the land exchange that would seem to protect Apache Leap, there are loopholes in the bill that allow Rio Tinto to do work under Apache Leap so long as it does not commercially extract ore from under the Leap. This allows the company full access to existing tunnels that now exist under Apache Leap. Should the company decide to move ore through Superior to the west, the company would have free rein not only to use its existing tunnels but to drill new ones as long as it does not commercially extract minerals. Not only is the bill language weak on assuring that block caving does not impact Apache Leap from the east, but this loophole would also allow Rio Tinto to undermine Apache Leap.

Oak Flat Campground

Removing President Eisenhower's Executive Order withdrawing Oak Flat from hard rock mining, as this bill would do, is no small detail. Not only is Oak Flat Campground an important parcel of public land for the myriad of reasons outlined above, not the least of which is religious freedom, but it is an important part of President Eisenhower's legacy. The Congress would be giving that legacy to two foreign mining companies. Another part of Eisenhower's legacy is the interstate highway system. Giving away Oak Flat is akin to giving away portions of I-10 in Arizona in the hope those foreign interests would somehow feel benevolent and use the interstate for the public good. The only sure way to protect the public values and prosperity that Oak Flat now provides is to keep it as it is: an oasis of green in a sea of mined lands free and open for all Americans and our visitors to enjoy.

How the Mine Permitting Process Is Supposed to Work

There is a process in this country that all other mining companies, including Rio Tinto and BHP, use to permit large mines on public lands. This process is to fully explore a mining prospect and determine whether it is economically, environmentally, and socially feasible. Once that decision is made, a mining company writes a detailed mining plan of operation and submits it to whichever federal agency manages the public land for which it would like permission to use (usually either the Forest Service or the BLM). The federal agency, using the provisions laid out in NEPA, engages the public and other agencies and decision-makers, and conducts a public review process that involves both a draft and a final environmental impact statement. This review gives the public, the mining company, and government agencies a chance to make the project better and safer. Once this process is complete, the federal agencies almost always grant the mining company a permit to mine after requiring adequate liquid bonding to ensure that everything will go according to plan. Often, the permit will mandate mitigation measures that also are designed to make the mine design better and safer. If the mining company wants to make major changes to the mine design or new information comes to light, there are provisions to reopen the review process, again to make the mine better and safer.

However, in this case, Rio Tinto is not willing to abide by this American process, and is going straight to Congress to gain private, foreign ownership of the land and bypass this process.

Conclusion

This special interest legislation, which would benefit two foreign mining companies at the expense of the American public, is not needed. Rio Tinto should stick with the process all other mines go through and write its mining plan of operation first. Then, if it is determined that a land exchange is necessary and the exchange needs to be done by federal legislation, a bill can be submitted and debated in Congress. Anything less is a guarantee that the American taxpayer and their land will be damaged and shortchanged in the process.