

## PROJECT FACTS

### MINE PLAN OF OPERATIONS

**A plan of operations that describes the details of our proposed mining project was submitted to the United States Forest Service (USFS) in November 2013.** The plan of operations is a document that describes all project features (mine, concentrator, tailings, infrastructure, filter plant) on private, state and public lands; water sources, quantity, uses and pipeline locations; and employment numbers. The document also includes baseline data (water, air, biology, cultural resources) collected in and around the proposed mine and provides information on closure, reclamation, and environmental protection measures.

The MPO will undergo a plan completeness review by the U.S. Forest Service (USFS), which will take many months. When the agency deems the plan to be complete, the comprehensive environmental review required by National Environmental Policy Act (NEPA) will begin with public scoping.

### NEPA (National Environmental Policy Act)

**The project will affect federal lands in the Tonto National Forest that are not subject to the proposed land exchange. Therefore, an approved mine plan must be obtained before operations begin. The land exchange bill pending in Congress will have no effect on that requirement.** The Forest Service's decision must comply with NEPA, which requires that an Environmental Impact Statement must be completed before a final Mine Plan of Operations is approved and a record of decision is granted.

Specifically, NEPA requires:

- Appropriate environmental protection and mitigation measures to be identified, considered and applied before a federal agency makes a decision. This includes rigorous water studies and substantive plans for protection of groundwater, surface water, recreation and cultural resources. Resolution will be accountable for implementing these measures.
- An alternatives analysis, including an assessment of tailings sites in other locations.
- A final reclamation plan along with financial assurance – it is the law. Resolution will be required to cover all closure costs and post-closure monitoring, not taxpayers.
- Compliance with all relevant rules and regulations including the Clean Air Act, Clean Water Act, the Safe Drinking Water Act and the Endangered Species Act for protection of public and environmental health and safety and biological resources. This is the law.

If Resolution Copper does not comply with NEPA or numerous federal and state laws and regulations, the mine will never begin production.

### WATER

**Resolution Copper has put together a plan to acquire renewable water sources and has secured enough water to sustain operations for approximately one half of the proposed mine life.** We have spent millions of dollars on securing banked water, otherwise known as long-term storage credits, that will provide water for our operations. This water comes from the Colorado River via the Central Arizona

Project (CAP) canal. Resolution Copper continues to look for and secure other sources of renewable water (banked or direct allocation from the CAP canal), and we have many years to do so.

As mentioned in our community forums, the maximum amount of water we will need in any given year is estimated to be 16,000 to 20,000 acre feet, but on average we will operate below the maximum. Water sources, uses and pipeline locations are detailed in the Mine Plan of Operations.

We will be dewatering the underground mine for operations, and the impacts will be assessed through a comprehensive environmental review under NEPA. Resolution has invested in an extensive surface and groundwater monitoring network to make sure we can give a full accounting of impacts to regulators and the public. The law prevents us from negatively affecting groundwater quality, and any impact to the water table will have to be mitigated.

### **MINING METHOD AND SUBSIDENCE**

**Resolution Copper Mining will use the underground mining method known as block cave mining. Specifically, RCM will use a subset of this technique called panel caving. Block cave mining will result in subsidence of the ground above the ore deposit. Subsidence is a slow and gradual process that is predicted, closely monitored and controlled.**

Block cave mining is a well-established method used at more than 20 mining operations around the world, many of which have been in continuous operation for decades. The method has environmental, safety and cost advantages that make it suited to mining large, deep ore bodies that otherwise would not be feasible or economically viable using alternative methods (open pit or cut and fill, for example). Because of these advantages, and based on the success of existing operations, 12 large-scale cave mines are being planned globally along with significant expansion of the method at existing operations.

Mining will start at a point far away and to the east of Apache Leap, and after 40 years of block-cave mining, projections are that the subsidence zone will be at its deepest (1,000 feet) but will still be more than 1,500 feet from the Leap after mining has ceased. Additionally, Resolution Copper's surface mining infrastructure is located between the subsidence zone and Apache Leap and would be impacted before any impacts to Apache Leap. The impact of subsidence, including impacts to recreation, will be assessed and mitigated through a comprehensive environmental review under NEPA and will continue to be monitored and managed throughout the life of the mine and thereafter.

### **CULTURAL RESOURCE PROTECTION**

**In addition to NEPA, Resolution must comply with all applicable laws relating to Native American cultural and sacred sites.** This includes the Native American Graves Protection and Repatriation Act, the National Historic Preservation Act and the American Antiquities Act as well as formal government-to-government consultation between the United States government and Native American Nations, including the San Carlos Apache. During formal consultation, the proposed mining operation is disclosed, cultural resources are identified, and impacts are assessed so they can be avoided or mitigated. The laws of the United States cannot under any circumstances be violated.

It should be noted that the Resolution Copper mine is located more than 20 miles from the boundaries of the San Carlos Apache Nation. Several large mines, and the communities of Globe and Miami, are located

between Resolution Copper and the San Carlos Apache Nation. Current major infrastructure, historical mining operations, active mining claims as well as recreation, ranching and cultural values in the Oak Flats area have co-existed for decades.

## **ECONOMICS**

**Since 1987, Elliot D. Pollack and Company has provided high-profile business and government representatives with sound economic data. The firm is uniformly recognized as one of the most well-respected economic consultants in Arizona. Resolution Copper commissioned an economic impact study by Elliot D. Pollack, which shows that the Resolution Copper mine will provide a total economic impact on the state of Arizona estimated at more than \$61.4 billion – more than \$1 billion per year – with nearly \$20 billion in federal, state, county and local tax revenue.**

Mining is very capital and equipment intensive; during operations, Resolution will directly employ 1,400 people (not robots) as miners, plant operators, engineers, diesel mechanics, administrative support, geologists, instrument technicians and other types of roles. The workforce numbers assumed in the Pollack study account for and are inclusive of many leading-edge technologies already used in mining today. The 1,400 direct jobs create a ripple effect of an additional 2,300 indirect jobs during operations, including contractors, consultants, doctors, firefighters, teachers, nurses and other important local jobs.

Resolution jobs will be based in Superior, not in remote operations centers, and will draw on the local workforce. To reduce the need for external hiring, Resolution will develop programs for training local workers during the development of the mine and invest in education throughout the region to help train children who are in elementary school to be the workforce of tomorrow. Resolution Copper has already invested hundreds of thousands of dollars for educational initiatives in the Superior School District.

The Town of Superior and other towns in Pinal County, including Queen Valley, will directly benefit from net tax revenue, which will result in lower property taxes for residents. Additionally, the thousands of direct and indirect jobs based in Superior will result in hundreds of millions of dollars in wages being spent in and around the area – a massive influx of cash to the local economy.

More than \$1 billion in private funds has been invested in this project to date, and more than 200 Arizonans already work at the site.

## **LAND CONSERVATION**

Resolution Copper is seeking a land exchange through the [Southeast Arizona Land Exchange and Conservation Act](#). This bill, which has bipartisan support in Congress will exchange 2,400 acres of land directly above the area where Resolution Copper holds mining claims for 5,300 acres of highly sought recreational, conservation and cultural lands that will be placed under federal stewardship. These lands include:

- **7B Ranch** – Pinal County, Arizona – 3,050 acres within the San Pedro ecosystem, encompassing 7 ½ miles along the Lower San Pedro River designated by the Nature Conservancy as one of the “Last Great Places on Earth.” Home to a free-flowing artesian spring-fed wetland populated by lowland leopard frogs, nesting birds, and native fish. This acreage is recognized by BirdLife International as an “Important Bird Area.”

- **Appleton Whittell** – *Santa Cruz County, Arizona* – A 940-acre tract adjacent to a congressionally established conservation area that is home to 200 bird species and 60 species of mammals.
- **Cave Creek** – *Maricopa County, Arizona* – A 149-acre property that houses numerous archaeological sites, including petroglyphs, structure ruins, and grinding sites.
- **East Clear Creek** – *Coconino County, Arizona* – 640 acres encompassing a notable fishery with sustained populations of both rainbow and brown trout; also home to big game such as Rocky Mountain elk, mule deer, turkey, and black bear.
- **Dripping Springs** – *Gila County, Arizona* – 160 acres identified by national rock climbers as a significant rock climbing resource.

Additionally, the Southeast Arizona Land Exchange and Conservation Act puts policies in place to protect Apache Leap in perpetuity by conveying 110 acres of Apache Leap, currently owned by Resolution Copper, to the Forest Service; explicitly prohibiting any type of extraction activity at Apache Leap; and requiring the management of Apache Leap to preserve the natural character and protect archaeological and cultural resources.

We thank you for taking the time to read our fact sheet. If you have any further questions we have additional information on our website at [www.resolutioncopper.com](http://www.resolutioncopper.com), you can follow us on Facebook and Twitter and you are welcome to visit our Main Street Office in Superior Main Street for further information.

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